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In the Supreme Court
OF THE
United States

OCTOBER TERM, 1932

No. 412

LOS ANGELES GAS AND ELECTRIC CORPORATION,
Appellant,

vs.

RAILROAD COMMISSION OF THE STATE OF CALIFORNIA, ET AL.,
Appellees,

CITY OF LOS ANGELES,
Intervener.

BRIEF FOR APPELLANT.

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OPINIONS OF THE COURT BELOW.

The opinion of the court below, on final hearing, is reported, *Los Angeles Gas and Electric Corporation v. Railroad Commission,* 58 Fed. (2d) 256.

There was no opinion of the court below on the motion for Interlocutory Injunction.

The opinion of the Commission is reported, *Re Los Angeles Gas and Electric Corporation,* 35 C. R. C. 442.

Chronology.

1868	Predecessor of the Company began gas service in Los Angeles.
1909 (August 1)	Company incorporated.
1913	Natural gas first introduced in Los Angeles, from Midway field, 125 miles distant, and mixed gas service commenced.
1917 (August 21)	The Company's rates first fixed by the Commission. (13 C. R. C. 724)
1919 (February 21)	Rates again fixed by the Commission. (16 C. R. C. 478)
1920	Shortage of natural gas; Company commenced reconstruction and enlargement of its manufacturing plant.
1921 (June 22)	Rates again fixed by the Commission and heat content of gas reduced to 750 B. t. u. (20 C. R. C. 93)
1924	Reconstruction and enlargement of manufacturing plant to 98,500,000 cubic feet daily capacity completed, at cost of $10,000,000.
1925	Discovery of additional gas supply in Santa Fe Springs and other Los Angeles Basin fields.
1926 (December 31)	Rates fixed for straight natural gas service, to yield 7.8% return. In effect a reduction in rates. (29 C. R. C. 164)

CHRONOLOGY (Continued)

1928 (November 13)	Rates reduced by Commission to present level, to yield 7.5% return "over a long period of years". (32 C. R. C. 379)
1929 (August 29)	Present proceeding initiated by Commission on its own motion.
1930 (July 17)	Hearings concluded and case submitted to Commission.
1930 (November 24)	Order of the Commission reducing rates 9% ($1,300,000 per annum) effective January 1, 1931. (35 C. R. C. 442)
1930 (December 22)	Bill to enjoin reduced rates filed; temporary restraining order issued.
1931 (January 2)	Interlocutory injunction granted.
1931 (June 2)	Case submitted in court below.
1932 (April 8)	Opinion of court below directing dismissal of Bill. (58 Fed. (2d) 256)
1932 (May 3)	Final decree signed and entered.
1932 (June 2)	Appeal allowed; Injunction continued pending appeal.

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October Term, 1932

No. 412

Los Angeles Gas and Electric Corporation,
Appellant,

vs.

Railroad Commission of the State of California, et al.,
Appellees,

City of Los Angeles,
Intervener.

BRIEF FOR APPELLANT.

The California Railroad Commission[1] on November 24, 1930 made an order reducing the gas rates of the Los An-

(1) For convenience the Railroad Commission of the State of California will be referred to as the Commission, and the Los Angeles Gas and Electric Corporation will be referred to as the Company.

geles Gas and Electric Corporation.[1] The reduction amounted to over $1,300,000 a year in gross revenue, and cut the net revenue available for return by more than $1,080,000 per annum, or more than one-fifth. (R. 12)

On December 22, 1930 the Company filed a complaint in the United States District Court for the Southern District of California attacking the validity of the order on the ground that the order was arbitrary and that the rates fixed were confiscatory, depriving the Company of its property without due process of law in violation of the 14th Amendment to the Constitution. (R. 1) On January 2, 1931, the court[2] granted an interlocutory injunction. (R. 101) On June 2, 1931 the case was submitted on the record made before the Commission and the affidavits filed on the application for the interlocutory injunction. (R. 104) In conformity with an opinion filed April 8, 1932 (58 Fed. (2d) 256) the court on May 3, 1932, entered a decree dismissing the complaint. (R. 203) This is an appeal from that decree.

The court continued the interlocutory injunction pending the determination of this appeal. (R. 205) The Company, pursuant to the interlocutory injunction, has continued to collect the existing rates, and now has on hand a sum in excess of $2,500,000 representing the difference between the existing rates, and the reduced rates prescribed by the Commission. (R. 197)

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(1) Only the gas rates of the Company are here involved and all statements, unless otherwise noted, apply exclusively to its gas business.

(2) Constituted in compliance with Judicial Code, § 266, 28 U. S. Code, § 380. It was composed of Circuit Judge Wilbur and District Judges, James and Jacobs.

The Company claims that the decision of the court below is erroneous, and that the order of the Commission is confiscatory, and a denial of due process of law in that;

1. In fixing the value of the Company's property, the evidence as to actual cost, reproduction cost and present fair value was ignored, and a rate base was fixed at an amount millions of dollars below that shown by the evidence. This resulted from the application of the erroneous theory that by reason of inaccurate book entries the Company was estopped to show the true cost and value of its property;

2. Although the evidence showed a going value of the property, in an amount of at least $9,228,667, which evidence was unimpeached and uncontradicted, no allowance whatever for going value was included in the rate base;

3. Revenues were estimated on assumed average temperatures lower than in fact experienced; the existing rates were held unreasonable and the new rates were fixed as reasonable, not on the basis of actual earnings of the Company, but on the theory that if the temperatures had been colder, the Company would have sold more gas and its earnings would have been unreasonably high, notwithstanding that rates fixed on such basis would in actual practice have failed to yield a fair return throughout the preceding six years.

4. Operating expenses were estimated at less than the amounts reasonably paid by the Company, and

depreciation expense was allowed in an insufficient amount, admittedly based on a sinking fund theory.

5. The fair rate of return was fixed at 7% on the deficient rate base; evidence that the rate of return enjoyed by comparable investments in the same locality amounted to at least 8%, was ignored; the return was erroneously fixed at an amount less than the cost of money invested by the Company;

6. As a result the rates prescribed will yield less than a fair return on the fair value of the Company's property.

7. The court below merely approved the results reached by the Commission and made no independent findings of the facts; its decision is subject to the same legal defects as is the decision of the Commission.

Statement of the Case

On November 13, 1928, the Commission made an order reducing the rates of the Company, effective December 1, 1928. (R. 3) The rates then prescribed (which are the rates now being charged under the protection of the interlocutory injunction) were fixed as "just and reasonable" for the future and the Commission stated that they "could be safely relied upon to yield somewhat more than 7½% over a long period of years". (32 C. R. C. 379)

On August 29, 1929, less than ten months after this order, the Commission on its own motion instituted an investigation of the rates of the Company. (R. 222) No consumer or municipality had made any complaint. After hearings at which evidence was adduced covering "every aspect of rate base and valuation" and other matters pertinent to the determination of the reasonableness of the rates (R. 18) the Commission on November 24, 1930, made the order here complained of. (R. 17) This order reduced the rates which had been prescribed as just and reasonable by the Commission two years before, by 9%, a reduction of $1,300,000 a year in gross revenue and of $1,100,000, (more than 20%) in net revenue.

Since 1917 the Company's rates have been fixed by the Commission. (R. 21) The Commission has invariably acted in accordance with a formula of rate making, described in its decision in this case, as follows:

> "This Commission for many years, in the exercise of its jurisdiction to establish reasonable rates for utilities of this character, has fixed rates to yield

> upon the historical or actual cost of the property, taking land, however, at current values and depreciation, calculated on a sinking fund basis, a return somewhat in excess of the cost of money invested in the property." (R. 19)

That the Commission itself recognizes that the formula followed by it in fixing rates is opposed to the decisions of this court and without support in law is indicated by the statement of President Seavey, of the Commission, who, in the course of an address favoring the enactment of legislation which would deprive the federal courts of jurisdiction to review rate making orders of the state commissions delivered at the 1931 convention of the National Association of Railroad and Utilities Commissioners, said:

> "A study of the court opinions indicates beyond reasonable doubt that in practically every major rate case in the last seventeen years in that state (California) the findings of the Commission could not have withstood the test imposed by the federal tribunals."
>
> (Proceedings National Association of Railroad and Utilities Commissioners, 1931, page 190.)

The rapid growth of the territory served by the Company[1] and the increasing demand for service, forced the Company to strain every resource to provide the needed additions to its plant. These additions had to be made

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(1) The population of Los Angeles and the number of connected meters of the Company follows:

	Population	Meters
1910	319,198	71,967
1920	576,673	152,442
1930	1,238,048	355,468

irrespective of general financial conditions. From 1920 to 1922 the investment in the gas department was nearly doubled (R. 24) although the financial conditions in 1921 compelled the Company to borrow money at a cost of 9% a year to raise part of the funds required. The rapid growth did not carry with it increased earnings sufficient to enable the Company to earn a fair return. As a result the Company was almost constantly before the Commission seeking an adjustment of its rates to enable it to earn a return more nearly commensurate with its increasing plant. While the Commission from time to time authorized increases in the rate per cubic foot for gas supplied by the Company, (R. 21) this did not result in an increase in the cost of gas service to the consumer (with the exception of a slight increase due to increased cost of service brought about by war conditions and the acute shortage of natural gas in 1921). The heat content of the gas was steadily increased[1], and consequently the true cost of gas to the consumer steadily decreased and, under the rates fixed by the Commission in 1928, is now substantially lower than at any time in the past. (Ex. 49, R. 341, 342)

The rates fixed by the Commission during the ten-year period following its first fixing of rates in 1917, uni-

(1) The British thermal units (B.t.u.) per cubic foot of gas, the cost to the consumer per 1,000,000 B.t.u. and the equivalent rate per 100 cu. ft. of 550 B.t.u. gas (the standard heat content of manufactured gas) were as follows:

	Gas Quality B.t.u.	Rate per 1,000,000 B.t.u.	Equivalent rate per 100 cu. ft. of 550 B.t.u. gas
1905	600	$1.4031	$.772
1915	816	.8333	.458
1925	855	.8090	.445
1929	1120	.7770	.427

formly failed to yield the return which the Commission itself (using its own theories of rate making) found reasonable. From 1917 to 1926 inclusive, the aggregate deficiency in earnings below the return allowed by the Commission was over $4,000,000[1]. Following the introduction of the service of straight natural gas in 1927, under rates prescribed by the Commission December 31, 1926, the Company's earnings improved. Almost immediately a new rate proceeding was commenced and on November 13, 1928, the rates were reduced and the rates now in effect were prescribed, the rate of return, as fixed on the Commission's theory, being reduced from 7.8% to 7.5%. (R. 21)

Within less than ten months thereafter, the present proceeding was instituted by the Commission on its own motion. (R. 222) In this proceeding the Commission sought to reduce the gross income of the Company by

(1) The rates of return allowed by the Commission and the actual rates of return received by the Company, calculated on Historical Rate Bases fixed by the Commission, were:

Year	Rate of Return Fixed by Commission (R. 21)	Actually Earned (R. 24)	Deficiency
1917	8.00	8.54	$ 71,702*
1918	8.00	6.77	165,321
1919	7.87	8.31	61,243*
1920	7.87	7.94	10,281*
1921	8.14	5.25	616,468
1922	8.14	7.12	296,380
1923	8.14	6.12	758,918
1924	8.14	6.65	678,916
1925	8.14	6.79	693,711
1926	8.14	6.36	971,742
Aggregate Deficiency			$4,038,230

*Credit.

9% or more than $1,300,000 per annum. This result was reached by the Commission by reducing the rate of return; by reducing by over $700,000 the amount theretofore fixed by it for working capital and materials and supplies; by reducing by $100,000 per annum the depreciation annuity previously prescribed by the Commission itself although the Company's property had increased by several millions in the meantime; by eliminating various actual and necessary operating expenses of the Company, previously unquestioned; by valuing the Company's property at less than its actual cost or fair value upon the basis of a claimed estoppel to show the true facts; by refusing to allow anything for going value; and by estimating future revenues upon a basis, which had it been applied in the past would have resulted in the Company failing to earn a fair return during the preceding six years.

The present proceeding was initiated before the collapse of October, 1929. The hearings were concluded in July, 1930, and the decision announced in November, 1930, before the full effect of the depression was clearly apprehended. The Company in its evidence had shown that it was already suffering the effects of the depression. (R. 74, 358) While recognizing from the Company's reports that estimates previously made were not being fulfilled, and that growth had been arrested, the Commission said "There is nothing in these reports or in the record to indicate that on a normal temperature basis the Company's business is not growing." (R. 51) It prescribed rates for the future solely from a consideration of "adjusted" operating results of 1928, 1929 and 1930 (R. 47) although the actual income of the Company was

substantially less than the "adjusted" income. The 1930 figures in large part were estimates, since the hearings were concluded in July.

In the proceeding before the Commission the Company showed the progressive decline in the actual cost of gas to its consumers and that such cost was then on the lowest basis ever in effect. (R. 341, 342) It showed that its operations were efficiently and economically conducted, that its controllable expenditures were below the average of other companies engaged in similar business. (R. 330, 331) It showed that the rates in effect compared favorably with those in other communities (R. 337) and compared favorably with the cost of other fuels, regulated and unregulated, in the same community. (R. 332) All this evidence was completely ignored in the decision and the Commission predicated its conclusions that the existing rates were unreasonable (and fixed new rates) upon the basis that if temperatures were colder and revenues greater than the preceding six-year averages, the Company would have realized "an earning level higher than heretofore deemed reasonable." (R. 35)

When the proceeding was instituted by the Commission no inventory of the Company's property was available, the last inventory and valuation being one made by the Commission as of 1915 and used by it in the first rate case in 1917. Since that time, all valuations for the purpose of fixing rates, had been arrived at by adding to the 1915 appraisement the net amount of book additions and betterments made since that date. Recognizing that there were inaccuracies in the Company's books in so far as the cost

of capital items were concerned and that book accounts carried in dollar amounts as of the time of acquisitions could not accurately reflect the items of property presently in use, or their cost, and could not show the present cost to reproduce them, the Company proceeded with dispatch to make an inventory and appraisement on the basis of historical reproduction cost and on the present cost of reproduction. This inventory was checked by the Commission engineers, found correct, and accepted by them for the purpose of their valuation estimates.

The Company adduced evidence as to the historical cost of its properties. The Commission's engineers adduced evidence on the same subject. Since they were in agreement as to the physical property to be valued, and followed accepted methods, their results were quite in harmony. Both engineers recognized the impossibility of determining actual cost, due to inadequate records, and showed historical reproduction costs, using unit prices and methods as of the date of construction of the various items of property. The final results differed by less than 5% in amount. (R. 260-261)

Both the Company and the Commission's engineers introduced evidence as to the present cost of reproduction of the properties, based on current prices and construction methods. Again, working from the same data as to the property to be valued, and following the usual engineering methods, the appraisal of physical properties[1] made by the two groups of engineers differed by only about 5%.

(1) Unless otherwise indicated, the term physical properties as used herein includes the cost of organization and franchises.

(R. 262, 263) The Company showed by evidence the existence of a substantial going value, over and above the value of physical property, and the amount of such going value was appraised by two engineers of long experience and national reputation. The Commission engineers did not controvert the existence of going value. They made no attempt to appraise this element of value and expressed no opinion thereon.

The Company also showed the cost and cost of reproduction of other intangible elements of value, (brokerage, financing, promotion) recognized as proper for consideration in many court and commission cases. These items where wholly rejected from consideration by the Commission.

While all of these facts were shown and the Company urged that they must all be given due consideration in determining the value of its property, it is not contended that the value of its property is to be determined by rigid adherence to any specific formula. The Company was not then, and is not now, seeking an increase in rates. As against a contemplated reduction in its rates which will wipe out more than one-fifth of its net earnings, the Company contended that this evidence must be taken into consideration and given due weight in determining the value of the Company's property, and that if this were done, it would clearly appear that the Company was not earning in excess of a fair return. The Company has always recognized that the determination of value "is not a matter of formulas". It does ask, and did ask the Commission, for the exercise of a "reasonable judgment, having as its basis a proper consideration of all relevant facts."

While the Company seeks the application of no rigid formula by which value should be determined, it does object, however, to a decision which has as its basis the rigid application of a formula by which all consideration of actual cost and of cost of reproduction is excluded on the ground of unfounded "estoppels" to show the truth, and by which going value is entirely excluded. This Court has held that the test is the value of the property used at the time of the inquiry. It has held that the kind of evidence here adduced must be fairly considered and a reasonable judgment exercised thereon. The Commission studiously avoided any finding of value, and excluded from consideration competent and uncontradicted evidence. It refused to pay any heed to the facts of historical cost, of actual cost, of cost of reproduction or of going value. This it did on the ground that the Company was estopped to show the true facts, an estoppel which, we will show, is unsupported by fact, and unauthorized in law; and because it did not believe in the principle of allowing for going value.

In addition to the evidence on value, the Company submitted appropriate evidence as to revenues, expenses and rate of return. This indicated that the rates then in effect were not unreasonable and that the lower rates prescribed would fail to yield a fair return on any value justified by the evidence.

The decision of this case need involve no dispute as to the proper theory of rate making. On whatever basis the case be considered, the rates prescribed will yield less than a fair return.

HISTORY OF THE COMPANY.

Incorporated on August 1, 1909, the Company acquired the properties of predecessor companies, which since 1868, had been engaged in the manufacture and distribution of gas in Los Angeles and vicinity. Prior to 1903 coal gas and water gas had been distributed. Beginning in 1903 oil gas was made and distributed, having a heat content of 600 British thermal units (B. t. u.) per cubic foot. (R. 415, 416)

In 1913 natural gas, in substantial quantities, was first made available in Los Angeles, being transported by pipeline from the Midway oil fields in Kern County, 125 miles from Los Angeles. The Company mixed this natural gas with manufactured gas, increasing the heat content per cubic foot to about 750 B. t. u. (R. 500) In 1915 additional natural gas supplies were discovered in the Los Angeles Basin within a radius of 30 miles from Los Angeles.

The Company continued the distribution of mixed gas[1], with some variation in heat content as additional gas fields were discovered, or old fields declined, until early in 1927 when the Company began the distribution of straight natural gas having a heat content of 1100 B. t. u., twice that of the manufactured gas originally distributed. (R. 416) While consumers' appliances are adjusted to burn straight

(1) Natural gas on the average contains 1100 B.t.u. (British thermal units) per cubic foot, while manufactured gas averages 550 B.t.u. per cubic foot. Mixed gas, *i. e.*, a mixture of natural gas and manufactured gas, contains a greater number of B.t.u.'s than does manufactured gas, depending on the mixture. The term is also applied to natural gas treated in the manufacturing plant to increase its volume and decrease its B.t.u. quality and then mixed with untreated natural gas.

natural gas, a mixture of natural and manufactured gas in the proportions that would be necessary under such circumstances, may be burned in the same appliances without adjustment and without damage. (R. 501)

The Company's service extends over the greater part of the City of Los Angeles and the nearby cities of Pasadena, South Pasadena, Alhambra, Huntington Park, Inglewood, and contiguous unincorporated territory. It had (as of October 31, 1930) over 2,900 miles of mains, storage holders of 65,000,000 cubic feet capacity, and over 385,000 meters. (R. 2)

The Company also has an electric department. The rates of that department were involved in the original order of investigation made by the Commission but the electric rates were reduced approximately $737,000 per annum during the pendency of the proceedings, to meet competition of the municipal plant of the City of Los Angeles. The reduction was approved by the Commission and the electric rates are not here involved. (R. 18) No question was raised at any time respecting the apportionment of property or earnings or expenses as between the two departments, and no such question is here presented.

DIFFICULTIES OF GAS SERVICE.

In the territory served by the Company the demand for gas fluctuates widely between seasons, and from day to day. Gas is used extensively for space heating and as a result the demand is greatly influenced by temperature and climatic conditions. Over 65% of the gas sold by the Company is distributed during the six winter months,

November to April, inclusive. (R. 25) As an example of this fluctuation, the send-out on January 11, 1930, was 136,205,000 cubic feet, while on July 31, 1929, it was but 25,918,000 cubic feet. On January 16, 1930, five days after the peak of 136,205,000 cubic feet send-out above mentioned, the demand dropped to 77,815,000 cubic feet, a decline of over 40%. Sales in January, 1930, were 2,397,495,000 cubic feet while in August, 1929, they amounted to but 803,846,000 cubic feet. (R. 499)

Throughout the territory served, the consumers are very largely dependent on gas service for cooking, water heating and space heating and any interruption of the continuity or sufficiency of supply would be disastrous. The Company must, and does, maintain facilities to meet the maximum demand, occurring at unpredictable times and lasting for but a brief period. (R. 501)

In 1920 and 1921 severe shortages of natural gas were experienced. During that period every resource both of manufacturing and of pipeline was strained to the utmost to provide service. (R. 499) The Commission appointed a gas administrator who apportioned the limited supply of gas among the distributing companies, cutting off non-essential users and publishing advertisements in the press exhorting conservation in the use of gas. (R. 338) The Company at that time immediately undertook the complete reconstruction and enlargement of its manufacturing plant and carried on the work continuously for the following three years, completing the work in 1924. (R. 499) The Commission itself approved the steps being taken to meet the situation, and suggested additional measures, which were undertaken. (R. 499)

In 1925 and 1926 additional oil and gas zones were found in the Los Angeles Basin and had the usual initial flush production. In 1926, the Commission in a rate proceeding involving the Company and other distributors of gas in Los Angeles and vicinity, found that the then existing supply of gas was adequate to permit the distribution of straight natural gas and fixed rates on that basis. In first fixing rates for straight natural gas service the Commission said (29 C. R. C. 164, 169) that all parties concerned conceded the necessity of continuing the manufacturing plant in service to meet any emergency that might arise.

The Company maintains this plant in perfect working condition and throughout the winter season the generators are heated, a crew is in attendance and the plant is in readiness to supply any deficiency that might arise from interruption of the pipe lines bringing in the supply of natural gas from distant fields, or due to peak demands in excess of the capacity of the pipe lines. (R. 503) This plant is one of the most modern in the country; it was constructed within the past ten years at a cost of approximately $10,000,000 and has a capacity of 98,500,000 cubic feet of oil gas daily. This is enough to replace the supply of any one of the major pipe lines into Los Angeles in time of emergency. (R. 501, 503)

Recent experiments have shown the practicability of manufacturing gas from Diesel oil in plants of this character. The gas so manufactured has a heat content practically equal to that of natural gas, so that any mixture would not appreciably affect the heat content. (Western Gas, August, 1932, p. 60)

Natural gas is produced in the Ventura and Santa Barbara County oil fields, 65 to 100 miles from Los Angeles and pipe lines have been constructed to make it available in Los Angeles. More important, the Kettleman Hills field, in Fresno and Kings County, 225 miles from Los Angeles, was discovered in 1928. The pipe lines from these sources cross ranges of mountains and desert regions, and are subject to the hazards of earthquake, washout and landslides. They are often laid in regions difficult of access and any break would interrupt service for a substantial period, even if repair work were promptly begun.

THE COMPANY'S RATES.

The Company's rates were first fixed by the Commission in 1917, shortly after it obtained jurisdiction over gas corporations. At that time rates were fixed, intended to yield a return of 8% on the estimated cost of the property as found by the Commission. (13 C. R. C. 724) Due to increasing costs of operation permission to increase rates was requested the following year, which was granted in part, the rates fixed being estimated to yield the Company a return of 7.87%. (16 C. R. C. 478) In 1920 the gas fields in the Los Angeles Basin, from which the Company since 1915 had obtained its principal supply, declined very rapidly and the severe shortage of natural gas already mentioned was experienced. A further application for authority to increase rates was made and the Commission fixed new rates. (20 C. R. C. 93) It was during this period that the Company undertook the enlargement of its manufacturing facilities already mentioned. The rates fixed in 1920 were estimated to yield between 8% and 9%, the cost

of money raised to expand the plant being as high as 9%. The return then found reasonable averaged 8.14%. At that time a schedule of rates designed to adjust itself automatically with increase or decrease in the price of oil was made effective.

In 1923 new supplies of gas were discovered in the Los Angeles Basin and an increase from 750 B. t. u. to 850 B. t. u. in the heating value of the gas distributed was ordered without any increase in rates. The Company was soon thereafter again compelled to apply for authority to increase its rates and an application was made in 1925. On December 31, 1926, the Commmission fixed rates for straight natural gas service, and estimated they would yield a return of 7.8%. (29 C. R. C. 164)

In 1928 the Commission again reduced the rates, and prescribed the rates which are now in effect under protection of the interlocutory injunction in this case. Throughout this period the Commission used as the sole basis for fixing rates, its appraisal of 1915 adding thereto the cost of the net capital additions and betterments since that date as shown on the Company's books (which costs are now admitted to have been understated in the books) making no attempt to fix the fair value of the Company's property.

THE PROCEEDING BEFORE THE COMMISSION.

Although no complaint against the Company's rates had been filed by any consumer or by any municipal body since the rates prescribed in 1928 had been in effect, the Commission, on August 29, 1929, less than ten months after it had reduced the Company's rates and prescribed the present rates as "just and reasonable," instituted a new investigation of the Company's rates, because, as stated in its decision, it felt that the Company was "apparently * * * realizing a better net earning than was deemed reasonable." (R. 17) After hearings at which the evidence hereinbefore mentioned was introduced, the Commission on November 24, 1930, issued the decision and order here attacked. In this decision and order the Commission concluded that "rates should be fixed which in the future will lower the Company's domestic and commercial gas revenue by approximately 9 per cent", (R. 46) and prescribed rates to be effective on and after January 1, 1931, which it said were "carefully calculated and intended to effect a reduction in the Company's gross domestic and commercial revenue of 9 per cent." (R. 54) The decision was not unanimous, Commissioner Decoto dissenting. (R. 66)

The test which the Commission applied was whether the net earnings of the Company as revised and "adjusted" (not the actual earnings) exceeded what the Commission considered to be a fair return on the rate base of the Company as fixed by the Commission. (R. 26, 45, 46) This was the sole basis for the pro forma finding of the Commission that the rates fixed by it as "just and reasonable" effective December 1, 1928, were "unjust and unreasonable."

The Company on December 3, 1930, filed a petition for rehearing (R. 75) which was denied on December 15, 1930. (R. 86)

WHAT THE COMMISSION DID.

The decision shows that the Commission undertook to fix the Company's rates, not on the basis of the fair value of its property, but in accord with the Commission's established rate making formula:

> "to yield upon the historical or actual cost of the property, taking land, however, at current values and depreciation calculated on a sinking fund basis, a return somewhat in excess of the cost of the money invested in the property". (R. 19)

The decision claims that California utilities whose rates have been fixed pursuant to this policy have prospered and it is stated that for many years the Company's rates have been fixed in this manner. The Commission considers as the first matter of inquiry, the earning position of the Company "on the basis heretofore used in respect to this and other comparable utilities in fixing rates" (R. 23) but instead of finding the historical cost of the property in accord with the evidence before it, finds as a "rate base" a figure which is built up from the sum of

(1) An estimate of historical cost made by a Commission engineer in 1915.

(2) Net additions and betterments as entered upon the Company's books from 1915 to 1929, (although as later pointed out these are admitted to be understated on the books).

(3) An estimate of land values, as of January 1, 1930, made by a Commission engineer. (R. 27)

Nothing is included for going value and the allowance for material and supplies and working cash capital is $700,000 less than was allowed for these items in 1928 when the Company's properties and business were less extensive than they now are.

The Commission then, as an independent part of its decision refers to the Company's challenge of the propriety of the Commission's traditional rate making policy and insistence on its constitutional rights. It proceeds to criticize the evidence of reproduction cost as theoretical and unsound (R. 39), and as a result the evidence of reproduction cost is wholly rejected, including the reproduction cost estimates of its own engineers. The Commission takes as the dominant consideration in arriving at what it characterizes as "fair value basis rate base," "Cost with adjustments for changes in price level." (R. 40) It is admitted (R. 91) that the rate base so determined is derived from:

(1) A reproduction cost estimate, using one-day unit prices as of June 15, 1930; with overheads at 6.35%, the average amount charged by the Company on its books from 1913 to 1929, inclusive, and admitted to be deficient as historical overheads.

(2) The same estimate of land values used in the historical "rate base."

The Commission refuses to treat going value as "an independent item of value", saying "this Commission does allow for the so-called intangible going concern value by treating its cost as a current operating expense." (R. 42) It likewise refuses to give any consideration to other

elements of reproduction cost, saying that its finding of fair value is arrived at by "excluding various built up claims of value incident to a reproduction of the property under an assumed reconstruction program as too uncertain and hypothetical to enter into a rate base figure". (R. 44)

Although the Commission, in independent parts of its decision, finds what it terms a "historical basis" rate base, and a "fair value basis" rate base, nowhere in the decision does the Commission find which of these figures, differing by nearly $5,000,000, represents the present value of the property.

The Commission in fact prescribed the rates here involved on its traditional rate-making formula. It found the so-called "fair value rate base" merely as a test of confiscation. This is in effect acknowledged in the decision. At the outset thereof it is said that "it becomes necessary to reach a sane and just conclusion as to what will constitute reasonable rates for the future—rates which will be in harmony with the bases applied to other utilities subject to regulation by this Commission". (R. 18) In announcing the decision as to the new rates it is said (R. 53): "The rates here fixed will place this Company in an earning position at least as good as, and probably slightly better than, that which this Commission intended it should enjoy when its rates were reduced in the latter part of 1928." It said further in a footnote (R. 53) "It is apparent that rates reasonable on the basis heretofore used in respect to the rates of this Company will likewise be reasonable on the so-called fair value basis."

The Commission relies solely upon theoretical estimates of what revenues would have been had lower temperatures prevailed than actually existed, had more gas been sold than was in fact sold and had more new consumers been obtained than were in fact obtained, and wholly disregards the evidence of actual experience of the Company. It estimates expenses by disregarding actual expenditures incurred by the Company in its operation, and by reducing by $100,000 the depreciation annuity which it allowed in 1928 when the Company's properties were less extensive than they now are. (R. 26, 45) The Commission, upon these estimates, ignoring actual experience, concludes that the Company's rates should be reduced, and asserts (R. 47) that the reduced rates which it proposes to establish would yield to the Company a return of 7.7% upon the "historical basis" rate base, or 7.0% upon the "fair value basis" rate base as fixed in the decision, but nowhere does the Commission find which of these rates is a fair rate of return.

The decision shows that the Commission was not undertaking to determine either the present fair value of the property used, or a fair rate of return to be allowed thereon. What the Commission was attempting to do was to advance arguments in support of its theory of rate making and to disparage the rules and principles enunciated by the courts. By holding out the enticement of a higher rate of return based upon its historical cost theory, and by suggestions of greater loss to come if the Company failed to accept its basis, the Commission sought to compel the Company's acquiescence in the rate making and valuation

formulas heretofore enforced by the Commission, as to which Commissioner Decoto in his dissenting opinion says:

> "In spite of the fact that the pathway is now made reasonably clear by the decisions of the courts, some state commissions seem to be inclined to be a law unto themselves and persist in ignoring the law as laid down by the courts. The California Commission has to all outward appearance been one of these." (R. 67)

COMMISSIONER DECOTO'S DISSENTING OPINION SHOWS WHAT THE COMMISSION DID.

The dissenting opinion of Commissioner Decoto, to which reference may properly be made to ascertain what the Commission did[1], shows just what the Commission did and how it was done. It shows that[2]:

1. "During the last two years this Commission has shown a tendency to cut the rate of return upon an historical rate base from between 8% and 8½% to 7%, which reduced the rate of return upon a fair value basis to 6.12½% to 6.3%. This is confiscation and not regulation." (R. 68)

2. "The historical basis used in Table No. V is not derived from any of the exhibits made by the Valuation Department of this Commission in this hearing but is based upon former rate bases fixed by this Commission in previous hearings." (R. 69)

3. This so-called historical cost is erroneous by reason of the insufficient allowance for indirect con-

(1) *Southern Pacific Co. v. Interstate Commerce Commission*, 219 U. S. 433; *St. Louis & O'Fallon R. Co. v. United States*, 279 U. S. 461.

(2) The quotations are from Commissioner Decoto's dissenting opinion; the other statements state the substance of findings in his opinion.

struction costs or overheads, unsupported by any testimony of record, the dissenting Commissioner finding:

"As I have pointed out, both the historical and fair value rate bases used in the majority opinion are based upon 6.35% overheads. There is no evidence in the record of any weight that justifies the adoption of any such overhead percentage. The lowest percentage of overheads that is at all supported by the record in this case is 11.25. In all the cases in which I have sat in the last five years, I have never heard the Commission's engineers advocate an overhead charge of less than 14%, so in adopting the engineering study which used an overhead of 11.25%, I feel that I have been conservative." (R. 73)

4. The historical rate base upon the basis of the testimony of the Commission's own engineers (there being no evidence supporting any lower basis) with allowance of 10% for going value is $69,000,000 compared with the Commission's finding of $60,704,000, or a deficiency of $8,296,000. (R. 72)

5. The fair value rate base fixed by the Commission was arrived at by making an insufficient allowance for indirect construction costs or overheads and by taking a one-day pricing period; the minimum fair value justified by the evidence of the Commission's own engineers being $72,500,000, compared with the Commission's finding of $65,500,000, a deficiency of $7,000,000, without any allowance for going value. (R. 72)

6. The Commission made no allowance for going value despite uncontradicted testimony that such value existed in a substantial amount, Commissioner Decoto saying (R. 74):

"The testimony of Colonel Miller that the going value of the Company's property over and above the value represented by its physical elements was at least $9,228,667, and the testimony of Mr. Luick that such value was at least $10,000,000 stands unchallenged and undisputed and undenied by any testimony anywhere in the record. To adopt, in the face of such undisputed testimony as the majority opinion has done, a going value of $422,866[1] (shown in Table No. VII), is an absolute disregard of all testimony and all law. In fixing the going value at 10% of the physical property, I feel that I have been conservative indeed, and probably would have been justified in using $10,000,000.

7. The Commission's estimate of net revenue under existing rates of $5,785,000 should be reduced to $5,394,977, based upon actual receipts to September 1, projecting the earnings for the remaining months of 1930, the Commission's estimate being excessive by $390,023. (R. 73)

8. The return under the rates prescribed by the Commission is less than 6.8% upon the historical cost, as found by dissenting Commissioner, and but slightly over 6.3% on the fair value found by him and "These returns are less than the cost of money". (R. 75)

The entire opinion of Commissioner Decoto deserves careful study. It not only shows exactly what the Commission did, but also how it did it, and how erroneous the results are.

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(1) It is admitted in the Commission's answer (R. 91) that this sum was not intended as an "independent item of going value". It is merely a "sacrifice to the easy convenience of round numbers".

THE PROCEEDING IN THE COURT BELOW.

Upon denial of the Company's petition for rehearing, a bill to enjoin enforcement of the new rates was filed. A temporary restraining order was issued pending convening of the court of three judges. The Company's motion for an interlocutory injunction was granted, a bond being filed conditioned on the repayment to the consumers of the difference between the rates collected and those which would be applicable under the order of the Commission if the order finally should be upheld. The evidence before the Commission respecting all matters of value, rate of return, earnings, expenses and net income was full and complete. The Company had held back none of its evidence. The case therefore, was submitted to the court below upon the evidence before the Commission and upon the affidavits and reply affidavits filed in connection with the motion for the interlocutory injunction, the last affidavits being dated January 2, 1931, and being addressed to matters necessary to bring the record up to that date. It was agreed that this evidence "should be deemed and considered as if all matters appearing therein had been testified to in open court". (R. 222) Briefs were filed by the parties and the case submitted to the court below for decision June 2, 1931. The case was not referred to a master, but the court itself undertook the task of examining the voluminous record consisting of 2131 pages and 67 exhibits, and considering and weighing the evidence. On April 8, 1932, the court below announced its decision, which ordered that the bill be dismissed.

Two opinions were filed in the lower court. The two district judges concurred in an opinion by Judge James.

A separate concurring opinion was filed by Circuit Judge Wilbur[1]. The majority opinion is in substance a mere approval of the action of the Commission. It is there stated that;

> "Rate cases, when they are brought into court, come impressed with the presumption that the state agency to which has been committed the duty to regulate public utilities has dealt fairly with the business affected, and that in every matter wherein, under any view, a discretion can be said to have been fairly and reasonably exercised, the courts will not interfere with the orders made." (R. 109)

The majority opinion states that "the California Commission made a most thorough investigation" (R. 109) and quotes extensively from the Commission's decision. Throughout the majority opinion occur such expressions as "the Commission said," certain evidence "sustains the Commission," certain items were "rejected by the Commission," and "the Commission had the right to use its judgment." The whole theory of the majority opinion is summed up in these words:

> "An examination of the voluminous record, including the innumerable tabulations showing the various comparisons made, demonstrates that there was no lack of attention to every element and item which would assist the Commission in arriving at what it deemed to be a fair value figure." (R. 114)

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(1) The opinion of Judge James, concurred in by Judge Jacobs, constitutes the opinion of the court and will be referred to as the court's opinion, or the majority opinion. The special concurring opinion of Judge Wilbur will be referred to as the concurring opinion.

Referring to the evidence of the going value the majority say:

> "The large amounts claimed by the Company for * * * cost of attaching business (going concern value) $9,228,667 * * * we think, were properly rejected as for their total amounts." (R. 117)

The Commission, had included but 6.35% of labor and material items for overhead costs, despite the testimony of its own engineers that 11.25% was a proper percentage to use for such items historically, and 22.62% on a reproduction basis. The Company's evidence showed that somewhat higher percentages were proper. The majority refer to the evidence of the Commission engineers in this regard and to the decision which ignored that evidence, basing the finding of historical cost on an appraisal made as of 1915, plus the book cost of subsequent additions and betterments (with the inadequate overhead charges to capital), and say:

> "Where a utility company in rate proceedings adopts as correct, an amount fixed in an initial order made at the time it came under regulation, it ought not to be permitted to assail that amount at this time on the ground that it is inaccurate." (R. 114)

and further:

> "It is true that one of the valuation engineers for the Commission testified that the Company might properly have charged to capital 11.25 per cent on account of overheads. Nevertheless, the action of the Commission in this regard, we think, was reasonable. The fact was that the Company, declining to follow

> the suggestion of the Commission that it assign to capital a greater amount of overhead expenditures, charged all of such expenditures exceeding approximately 6 per cent of the total thereof to operative expense, with the result that it has had during successive years the benefit of a much reduced net income figure, by the use of which in turn, its rate charges have been increased." (R. 116)

In our discussion of the history of the Company and its experience under regulation by the Commission, we have shown that the assumptions of the majority of the court below in this regard are erroneous and that, during the period when insufficient charges to capital on account of overhead expenses were being made, the Company constantly fell short of earning the return which the Commission had itself fixed as reasonable, even on the deficient historical cost rate base fixed by the Commission. We shall have more to say in respect of these matters later.

We have noted these observations of the majority of the lower court, for the purpose of indicating that the lower court did not afford the Company the "independent judgment as to the law and the facts" which under the law and the decisions of this Court it is its duty to give in cases of this character. In their opinion the majority say "The Commission established two valuation totals as for the gas department of plaintiff, one of which is characterized the 'historical cost' and the second, 'present fair value'." (R. 108) Although the Company requested the lower court to make specific findings as to the value of its property (R. 179), the fair rate of return

and the revenues and expenses the court failed so to do, but in the final decree said:

> "The court now finds that the values for plaintiff's property as fixed and determined by the defendant Railroad Commission are the reasonable values thereof; that the rates fixed are such as to render a reasonable return on such values and that said rates are therefore not confiscatory." (R. 204)

There can be but one value of the property for the purpose of determining whether rates are confiscatory, although many kinds of evidence may be considered in determining that value. The Commission did not find the value of the Company's property but instead found two independent figures which it characterized as "historical cost" and "fair value" and tested the rates independently on each such basis. Neither represented the actual cost or present fair value of the property. Both were arrived at by wholly erroneous methods, as we will show. The court below did not determine which of these inconsistent "values" was correct but contented itself with a finding in the final decree that both were correct. The opinion of the lower court adds nothing to the findings of the Commission and we believe that further discussion of the problems here presented may properly be addressed to a discussion of the evidence and of the action of the Commission in the face of such evidence.

THE CONCURRING OPINION.

While Circuit Judge Wilbur concurred in the result he did not join in the opinion of the majority of the court below,

but filed a separate opinion (not concurred in by either of the other judges). He recognized the duty of the court to give an independent judgment on the issues of confiscation raised by the bill. (R. 120) He found that the conclusions of the Commission "should be scrutinized with care" because of the failure of the Commission to follow the law as enunciated by this Court. (R. 122) He recognized that going value must be appraised and allowed for, and that it was not (at least not in full) allowed for by the Commission. (R. 137) He said that the use of "spot prices" used by the Commission in its so-called "fair value" rate base was wrong, (R. 147) and that the practice of the Commission in using a sinking fund depreciation annuity was erroneous. (R. 163)

Nevertheless the circuit judge concurred in the result, basing his conclusion apparently on the theory that the court was entitled to disregard the overhead costs actually incurred, and those which would be incurred in reproducing the property, in favor of the charges entered upon the books, which were admittedly inaccurate and deficient; he then rejected the evidence of all the engineers respecting the amount of accrued depreciation and used the amount of the Company's book reserve for depreciation (accumulated on a sinking fund basis) as the measure of depreciation; he questioned the useful character of the gas manufacturing plant, although finding it unnecessary to actually decide that point and although both the Company and the Commission had treated it as being used and useful. Finally, he applied the sinking fund depreciation annuity fixed by the Commission to a depreciated rate base

(arrived at by deducting the amount of the depreciation reserve) and concluded that sufficient compensating errors had occurred to make the final result reached by the Commission substantially correct, although practically every step of the Commission in reaching that result was, as is shown in his opinion, erroneous.

Specification of the Assigned Errors Intended To Be Urged

Appellant, in conformity with Rule 13 has filed its statement of the points to be relied upon. (R. 519) Assignments of error were filed in the court below at the time the appeal was taken. (R. 206) The errors relied upon may be summarized as follows:

1. No consideration was given to the actual cost of the Company's property, but such cost was determined solely on the basis of an appraisal made as of 1915, plus additions and betterments since that date as recorded on the Company's books, although uncontradicted evidence showed such book entries were less than the true cost of such property. (Assignments of Error XIV, XV, XXIII, XXIV, XXVI, XXVII, LXIX)

2. No consideration was given to the cost of reproduction of the property. The "fair value" rate base fixed by the Commission and approved by the court below was shown to have been derived from the use of one-day prices as of June 15, 1930, with 6% overheads, which sums are shown to be less than the cost of reproduction. (Assignments of Error XIII, XVI, XVII, XIX, XXII, XXV, LXIV to LXVIII inclusive, LXX)

3. No consideration was given to or allowance made for the going value of the Company's property, shown by uncontradicted evidence to exist in at least the sum of $9,228,667. (Assignments of Error XXIX to XXXIV inclusive)

4. No consideration was given to the amount of accrued depreciation as shown by the evidence, and the utility of

the Company's gas manufacturing plant was questioned. (Assignments of Error XXI, XXXV to XLIII inclusive)

5. Revenues and expenses were determined, not upon the basis of actual experience of the Company but upon estimates of what would have been the case had temperature conditions been wholly different from those in fact experienced. (Assignments of Error LIII to LVIII inclusive, LXIII)

6. The depreciation annuity was calculated upon a sinking fund basis and was at least $1,200,000 less than the proper allowance for that item of expense. (Assignments of Error LIX to LXII inclusive)

7. No consideration was given to the evidence showing that the fair rate of return was not less than 8%. The rate of return was determined on the theory of allowing a return slightly in excess of the cost of money invested in the property; the amount so allowed was in fact less than the cost of money so invested. (Assignments of Error IX, XX, XXII, XXVIII, XLIV to LII inclusive)

8. The court below approved the methods used by the Commission and the results thus reached; and failed to give an independent judgment upon the law and the facts, failed to find the value of the Company's property, the fair rate of return thereon, or the probable revenues and expenses. (Assignments of Error I to XII inclusive, XVIII, XXI)

Summary of Argument

It will be our purpose to point out, under appropriate subject headings (I) Value of the Property, (II) Revenues, (III) Operating Expenses, and (IV) Rate of Return, that the order is invalid even on the basis of the minimum values and estimates shown of record, thus making a review and weighing of the evidence unnecessary. We will also discuss briefly the question raised by certain expressions in the opinion of the court below relating to the utility of the gas manufacturing plant. We will follow this discussion with a summary showing the effect of the errors of the Commission and of the court below from the standpoint of the minimum figures shown by the record and from the standpoint of the figures shown by the Company's evidence. A summary of the argument, in the order in which the questions will be discussed, follows:

I. VALUE OF THE PROPERTY.

A. Neither the Commission nor the court below gave consideration or weight to either the historical cost or the cost of reproduction of the Company's property, and therefore did not and could not find the present fair value thereof. Both the Commission and the court below ignored competent and uncontradicted evidence in respect of both historical cost and cost of reproduction, and fixed a rate base many millions of dollars less than the actual cost and present value upon the erroneous theory that actual cost and present value should be rejected and ignored by reason of errors in the Company's books of account.

1. The historical cost figure used is insufficient because it is more than $2,000,000 less than the actual

cost incurred in the construction of the property; it is made up from,

(a) An appraisal made by the Commission as of 1915.

(b) Book cost of additions since that date, although the Commission admits that the actual cost is in excess of the amount shown on the books.

(c) An estimate of land values as of January 1, 1930, by a Commission engineer.

2. No consideration whatever was given to reproduction cost. Despite the evidence of the Commission's engineers that the cost of reproduction is not less than $73,637,542, without going value (to which should be added work in progress, working cash capital and materials and supplies, amounting to at least $1,862,103, as allowed by the Commission) the so-called fair value was fixed at $63,637,897 for such property, a deficiency of $10,000,000. This "fair-value" figure was arrived at by expressly refusing to consider the evidence of reproduction cost, and by taking as the "dominant consideration" and sole determining factor a rigid formula set up by the Commission, being the ascertainment of "the effect upon such actual cost of the simple and single assumption that current prices prevailed during the life of the property." Even that formula was misapplied in fact and the method used was:

(a) Historical costs were translated to current price levels by using spot prices as of June

15, 1930, applied to a reproduction cost estimate, with its incidents of quantity purchases, improved methods, etc. tending to reduce the figure so found below actual cost;

(b) Overheads were computed on the basis of 6.35%, the average amount charged on the Company's books between 1913 and 1929, although the Commission's own engineers testified that 22.32% would be the reasonable reproduction cost overheads.

(c) The same land values were used as in the historical appraisal.

B. Neither the Commission nor the court below included any allowance for going value. The uncontroverted evidence showed the existence of this element of value and that it amounted to at least $9,228,667. If allowance be made for the minimum going value shown by the evidence the rates are confiscatory using the Commission's own figures in every other respect.

II. REVENUES.

The existing rates were found to be unreasonable and a 9% reduction ordered in the face of evidence of business depression and a decline in earnings. The reduction was predicated wholly upon the earnings that would have accrued had temperatures been colder than were in fact experienced, had more consumers been attached than were in fact served, and had more gas been sold than was in fact sold. Actual experience of the Company was disregarded and the reduction ordered solely upon the

basis of an assumed average or "normal" condition, which, if exactly applied, the Commission's own engineer testified, would have resulted in less than a reasonable return to the Company throughout the preceding six years.

III. OPERATING EXPENSES.

In addition to rejecting reasonable items of operating expense, actually incurred, of $80,000 per annum, the allowance for annual depreciation charge was reduced $100,000 below the amount allowed in 1928 when the property was less extensive (by more than $6,000,000) than at the time of the hearing. The annuity was admittedly computed on a 6% sinking fund basis (and despite this fact was upheld by the court below) although the Commission's own engineers testified that the annuity would be over $2,300,000, on a straight line basis, using their estimated lives. This is over $1,200,000 per annum in excess of the annuity allowed. With a depreciated rate base it is error to use other than a straight line depreciation annuity.

IV. RATE OF RETURN.

Uncontradicted evidence as to the rate of return enjoyed by comparable investments in the same locality was ignored, and a lower rate of return fixed on the basis of what had been allowed other utilities by the Commission, on the same erroneous theories of regulation as were here followed. While purporting to be a return "somewhat in excess of the cost of money invested" the return allowed is in fact less than the cost of money to the Company.

V. THE GAS MANUFACTURING PLANT.

While not excluded from the rate base, the court below questioned the utility of the gas manufacturing plant, although the evidence shows that it is in fact used and useful property; that its continued existence and operation is essential to prudent operation and that if it did not exist steps should at once be taken to build one of the same size and character at the same location; that the introduction of natural gas service would have been impossible except for the existence of the plant; and although the service of natural gas was first prescribed by the Commission with definite recognition that the plant should be continued in service.

The findings of the Commission being predicated on erroneous theories of law and ignoring uncontradicted evidence and being contrary to the clear effect of the evidence are arbitrary and the order should be annulled. The court below followed equally erroneous theories, disregarded the evidence and failed to give or exercise the independent judgment of the facts and the law which it was its legal duty to give. Its decree should be reversed.

Argument

I. Value of the Property

THE EVIDENCE AS TO VALUE.

The evidence introduced before the Commission was that appropriate to a rate proceeding. Estimates of the historical reproduction cost, cost of reproduction, accrued depreciation, revenues, expenses and rate of return were submitted both by the Company and by the Commission. No evidence bearing upon the questions involved was withheld by the Company. The record before the Commission, consisting of 2131 pages and 67 exhibits, shows all of the facts appropriate to a determination of all of the issues.

In the proceeding in the court below, in view of the complete showing thus made, the case was submitted upon the record made before the Commission, supplemented by affidavits bringing the information up to the date of filing the bill (December 22, 1930). In so doing it was agreed that the court below was to pass upon the evidence taken before the Commission "to the same purpose and effect as if all matters appearing therein had been testified to in open court." (R. 203)

In the presentation of the Company's case in the court below, the weight of the evidence was discussed and the Company contended for the value shown by the evidence adduced on its behalf. It was shown that the witnesses for the Company were better qualified by experience to testify in respect of the many matters of opinion necessarily involved, than were the witnesses for the Commission, and for that and other reasons the estimates of the Com-

pany engineers should be accepted rather than those of the Commission engineers.

While this Court has power to review the evidence from the same standpoint, it is not necessary that it do so to conclude that the Commission's order is invalid. While the record fully supports the Company's contention respecting the questions of value, rate of return, revenues, expenses and net revenue under the existing and prescribed rates, it is not necessary that this contention be demonstrated in order to establish the invalidity of the order. The minimum values and estimates shown by the evidence were ignored both by the Commission and the court below, and such minimum estimates and values, almost all of which are those made by Commission engineers, show that the order is confiscatory. Indeed the invalid order results not alone from the acceptance of values and estimates that are too low, but also from the application of erroneous methods and theories in dealing with admitted and uncontroverted facts. The minimum estimates shown by the record are high enough to demonstrate the invalidity of the Commission's order, which was reached by the application to such estimates, of fundamentally erroneous theories.

It will be our purpose to point out, under the appropriate subject headings of value, revenues, expenses, and rate of return, that the order is invalid even on the basis of the minimum values and estimates shown of record, thus making a review and weighing of the evidence unnecessary. At the same time we will point out the evidence which demonstrates that the Company's contentions are

justified, in order that, should the Court consider it necessary, it may find and determine the value, rate of return and other essential issues, which we submit will demonstrate the invalidity of the order.

THE LAW APPLICABLE.

Beginning with *Smyth v. Ames*, 169 U. S. 466, this Court has laid down as a rule of substantive law, that in determining the confiscatory character of rates prescribed by state authority for public utility companies, the basis of all calculation is the present fair value of the property devoted to public service; and that in determining the present fair value "there must be a reasonable judgment, having its basis in a proper consideration of all relevant facts," among which are the original cost, if ascertainable, the estimated historical cost (in the absence of direct evidence of original cost) and the cost of reproduction, with due allowance for the depreciation, if any, which the property has suffered. The decisions of this Court have definitely established that the determination of fair value "is not a matter of formulas," whether the formula sought to be applied be historical cost, prudent investment, reproduction cost, or "current price level."

It is also established that where a regulatory body has fixed rates by the application of a formula which ignores any of the elements which have been held necessary for consideration, or has failed to give due weight and consideration to competent evidence, or has reached a decision without evidence or upon evidence which clearly does not

support it, the decision so reached is arbitrary, a denial of due process of law and must be set aside.[1]

WHAT THE COMMISSION DID.

The Company introduced evidence as to the historical cost of its property and as to the cost of reproduction thereof. The Commission's engineers likewise introduced evidence as to both these matters. A complete, detailed inventory of the Company's property was prepared, the first such inventory ever made or available in a proceeding involving the Company's rates. It was checked by the Commission's engineers and found correct. It served as the basis for their estimates. Both groups of engineers followed accepted valuation methods and reached comparable results. While the figures of the Commission engineers were uniformly below those found by the Company's engineers, the differences were no greater than could properly be attributed to differences in the judgment of engineers following accepted methods. Both as to historical cost estimates and reproduction cost estimates the differences in final results were not over 5%.

The historical rate base fixed by the Commission was more than $2,000,000 less than the amount shown by the evidence of its own engineers, and the "fair value" rate base was $10,000,000 less than the cost of reproduction shown by the evidence of its own engineers, in each case

(1) *Bluefield W. W. & I. Co. v. Public Service Commission*, 262 U. S. 679; *Ohio Utilities Co. v. Public Utilities Commission*, 267 U. S. 359; *Northern Pacific R. Co. v. Department of Public Works*, 268 U. S. 39; *Chicago, M. & St. P. R. Co. v. Public Utilities Commission*, 274 U. S. 344.

without including any sum for going value. These differences are in respect of the value of fixed properties only, no intangibles being included, nor anything for materials and supplies, working cash capital or additions and betterments subsequent to the valuation date.

The following table shows the respective estimates of the Company (as of January 1, 1930) and the Commission engineers (as of December 31, 1929) the amount allowed by the Commission for valuation of fixed properties, and the amount added for materials and supplies, working capital and 1930 additions, as fixed in the decision. There is also shown the minimum estimate of going value made by the Company's engineers. The Commission engineers made no estimate of going value and the Commission expressly refused to make any allowance therefor.

VALUATION ESTIMATES

	Fixed Property Only	Plus Commission Allowance for M. & S., Cash Working Capital, etc. ($1,862,103)	Plus Going Value
Historical Cost			
Luick (Company)	$63,413,246	$65,275,349	$74,504,016
Dufour (Commission)	61,019,662	62,881,765	No estimate
As found by Decoto, C.	61,019,662	62,881,765	69,000,000
As fixed in Decision	**58,842,187**	**60,704,000**	**Rejected**
Reproduction Cost			
Luick (Company)	77,586,700	79,448,803	88,677,470
Dufour (Commission)	73,637,542	75,499,645	No estimate
As found by Decoto, C.	73,445,229	75,307,332	81,958,471
As fixed in Decision	**63,637,897**	**65,500,000**	**Rejected**

These estimates, including the Commission's rate base figures, are without deduction for depreciation. This subject will be considered hereafter.

As shown by the Commission's decision, the rate fixing process of the Commission was this: It first arrived at a figure which it called "historical rate base". This figure ($60,704,000) was greatly below either the actual or historical cost of the property and included nothing for going value. Estimating the revenue under existing rates at a sum greatly in excess of the actual revenues by adjusting such revenues to so-called normal temperatures, and by decreasing the actual operating expenses of the Company by omitting certain items, and by reducing by more than $100,000 per annum the sinking fund depreciation annuity fixed by the Commission in earlier rate cases, the Commission arrived at the net revenue available for return. This net for return was then applied to the historical rate base determined as above, and the Commission on that basis concluded that the existing rates were unreasonably high and should be reduced by 9%, thus producing the reduced rates which the Commission found would return 7.7% upon such historical rate base.

Evidently with the object of demonstrating that such a net for return would also yield a fair return on a rate base which gave consideration to the cost of reproduction, the Commission then proceeded to find as a "fair value rate base" a figure which was made up of spot prices for direct labor and material, with 6% overheads, and without any allowance for going value. Although the record contained evidence as to the amount of accrued depreciation, the Commission stated that it preferred to make rates on an undepreciated rate base, using a sinking fund depreciation annuity. Pursuing this theory, and using a sinking fund annuity arrived at in the same way as the historical rate

base annuity, the Commission concluded that the new rates would yield 7% on such a "fair value" rate base.

By relating the return to an undepreciated rate base, instead of a depreciated rate base as is required by law, and by using a sinking fund depreciation annuity, instead of a straight line annuity, as is also required by law, the Commission was able to arrive at figures indicating a much higher rate of return than would be indicated by the use of a depreciated rate base, and a straight line annuity. Indeed, if the Commission's own estimates of accrued depreciation, straight line depreciation annuity, revenues and expenses are used, the resulting net revenue available for return is less than a fair return on the Commission's own deficient rate base figures. All of these matters will be dealt with under their appropriate headings.

HISTORICAL COST.

While the Commission purports to have followed the formula of establishing rates "to yield upon the historical or actual cost of the property, taking land, however, at current values and depreciation calculated on a sinking fund basis, a return somewhat in excess of the cost of the money invested in the property" (R. 19) in this case it rejected the uncontradicted evidence of its own engineers as to the amount of such historical cost, as well as the evidence of the Company engineer, showing a somewhat higher cost. It fixed the historical "rate base" not on the basis of the evidence as to historical cost but on a built-up figure, consisting of:

1. An estimate of historical cost as of 1915, made by a Commission engineer in 1917;

2. Book entries of net additions and betterments from 1916 to 1929 inclusive;

3. An estimate of current land value made by a Commission engineer.

HISTORICAL OVERHEAD COSTS.

The discrepancy between the figure so fixed and the minimum evidence as to historical cost (amounting to more than $2,000,000 for the fixed properties alone) arises primarily from the amount included in the book record of additions and betterments from 1916 to 1929. The evidence shows, the decision recognizes, and in the court below no contradiction was made, that the amounts recorded by the Company on its books in respect of indirect construction costs or overheads were inadequate to reflect the proper amount of these costs. The average charged on the Company's books for these costs from 1913 to 1929 was but 6% of the direct labor and material charges. The percentages charged each year, as shown by the Commission, were as follows (Ex. 54, R. 272):

Year	% Charged by the Company	Year	% Charged by the Company
1913	1.90	1922	3.76
1914	3.65	1923	4.00
1915	4.54	1924	5.69
1916	3.07	1925	7.69
1917	2.44	1926	10.28
1918	6.79	1927	8.81
1919	1.39	1928	12.57
1920	1.85	1929	10.85
1921	3.25	Average	5.98

It will be noted that commencing with 1926 the overheads actually charged have more nearly approximated

reasonable historical overheads. In fact the Company's evidence (R. 323) shows that some reduction in the overhead charged on the books in 1928 should be made.

Indirect construction costs, or overheads, represent actual expenditures for items other than direct labor and material. They include the items of engineering and superintendence, law expense, injuries and damages, errors, omissions and contingencies, taxes, and interest during construction. They do not represent intangible items in any sense, but constitute costs and expenditures for physical property which, to use the words of the court in *Monroe G. & F. Co. v. Michigan P. U. Comm.* (292 Fed. 139, 148), "are as much a part of the fair value of the plant, considered on any basis, as are the iron and the bricks".

But while the expenditure or cost of the direct labor and material used in a particular capital improvement are easily ascertainable from an accounting standpoint, it is not easy to determine with accuracy the expenditure for the indirect costs or overheads. This arises from the fact that if the capital improvement is made by a company in actual operation, a considerable part of the engineering, superintendence and law work are done by its regular staff, the regular executives devote some of their time to planning and supervising the work of construction, the current funds of the company are used, taxes on the property are paid at the same time or as part of the payment on other property, and, as a result, the amount to be allocated to capital as compared to operations is difficult of exact ascertainment. The usual practice is for all such items, both for operation and capital to be carried in a

"clearing account", and periodically charged to capital and operations, according to the judgment of the accountant in charge of the books. (R. 269) The percentage allocated to capital and operation vary with the nature of the improvement, and the character of the indirect work, but over a period, the overhead percentage (*i. e.*, the percentage relationship which overhead construction costs bear to the total of direct labor and material costs) averages out to a round amount, usually in excess of 14%.[1] Unless the most careful supervision is exercised, the allocations from the clearing account as between operations and capital are inaccurate and the books cease to reflect either the actual or the historical cost of the property.

Indeed, over a period of years it is not possible to determine with exactitude from the books of account the actual or historical cost of the property, no matter with what precision the books are kept. Entries in books of account are in dollar amounts. Additions as shown on the books consist of dollars, not of items of physical property, and retirements consist of dollar amounts, and not of properties. It, therefore, results over a period of years that while the books of account pretend to show in dollars the net investment, they do not accurately reflect the actual property on hand. In an attempt to remedy this defect some utilities maintain a property ledger in which the items of property are

(1) In this case the Company's engineers estimated 14.48% as the correct amount. The Commission engineers estimated 11.25%. In the 1917 rate case the Commission allowed approximately the amount now claimed by the Company. (R. 28) Commissioner Decoto, in his dissenting opinion, said, (R. 74) "In all the cases in which I have sat in the last five years, I have never heard the Commission engineers advocate an overhead charge of less than 14% * * *."

recorded when they are acquired, and on which they are charged out when they are retired. With such a ledger it is possible to determine with somewhat greater accuracy the historical cost of the property in use at any given time. This Company had no such property ledger prior to this rate proceeding.

Under such circumstances, the only accurate way of determining the historical cost of the property in use at a given time is to inventory the items of such property, and to determine by the exercise of engineering judgment based upon an examination of the Company's records and other information as to historical prices, etc., what it actually did cost to construct the property. The methods employed in such an investigation are well established, and the results are highly accurate. One of the steps required is to determine the correct overhead percentages to be applied to the direct labor and material items shown in the inventory, in order to arrive at the total cost. This percentage is determined from the books, records and other pertinent data, and is more accurate than the amounts actually appearing on the books, as representing such overhead items, entered at the time.

In preparing the historical appraisal it was discovered that the amounts appearing on the books for overhead costs were grossly inadequate; that the Company's auditors had followed no uniform practice, and had omitted some items and classifications, like legal expense, entirely and had failed to include many items of overhead costs. A careful study of construction and operation accounts was undertaken. As a result thereof the Company engineers found that the correct percentage to be included for overhead construction costs aggregated 14.48% of direct labor

and material items. (R. 369) The Commission engineers also made an independent study of the overheads. Commissioner engineer Wehe testified:

> "I have also made a study of the amounts which the Company might in my judgment have charged, and from a rather careful and detailed analysis over this period of 17 years, it is my conclusion that an overhead in the amount of 11.25 per cent might have reasonably been charged to capital. These are the amounts used by Mr. Dufour in Exhibit 52." (R. 267)

Commission engineer Wehe introduced Exhibit 54 (R. 268) showing in detail the methods followed by the Company in the past and the analysis he had made to develop proper charges. He showed, for instance, that no charges whatever had ever been made for legal expense (R. 270), that interest during construction had been charged at some times and at others no such charge appeared on the books. (R. 271) Some of the charges actually made in the past (like taxes and interest on lands) he considered improper and discarded. (R. 277) It was a complete and detailed analysis of the cost actually incurred by the Company.

Errors of the Commission Respecting Overhead Costs.

Without questioning the correctness of its own engineer's conclusions, the Commission in its decision expressly refused to consider this evidence, saying that the historical rate bases fixed by it "have not been raised as urged by the Company because of the claimed omission of so-called overhead charges, allocated by the Company from year to year and in the ordinary course of its accounting practice to operating expense". (R. 27)

The reason given by the Commission for so refusing to recognize the uncontradicted evidence which it had before it as to actual historical cost is:

> "In the initial case involving the gas rates of this Company a rate base was fixed including overhead charges substantially higher than those charged by the Company in preceding years and approximating those now claimed. The Company was thus fully apprised of a basis of assigning to capital certain general charges allocatable in part to capital and in part to operation. Notwithstanding the fact that it was thus definitely advised of the propriety of allocating more of these to capital and less to operation, the Company, in subsequently making these splits or allocations, saw fit to allocate on its books the bulk of these to operation much as it had done prior to 1917. * * * With the exception of interest during construction, of which special mention will be made, the effect of this long continued practice and course of action has been that the Company has been allowed in the form of operating expense allowances, items which it now says should have been added to capital and which it now seeks to add to capital. There is no equity in the Company's claim; and by its conduct and election it has created a quasi estoppel against now seeking to gain advantage by repudiating its own books and records as well as its position repeatedly taken before this Commission. The foregoing observations are not entirely applicable to the overhead expense of interest during construction. That, when not charged to capital, was charged to the income accounts and did not get into operating expense. The Company's course in this was somewhat

> erratic. For a few years none was charged to capital. In fairness, the rate base should be increased by the difference between interest during construction as actually incurred and the amount thereof charged to capital. This has been done." (R. 28)

This holding of the Commission is erroneous as a matter of law and is predicated on a misconception of the facts. It is erroneous as a matter of law because the question before the Commission is the present value of the property used in the public service, not the source of the funds from which that property was acquired. It is erroneous as a matter of fact in that at the time while the inaccurate entries respecting overhead costs were being made on the Company's books the Company consistently failed to earn the return to which the Commission itself had found the Company entitled (even on the Commission's own inadequate rate base and rate of return) and, therefore, the cost of these overhead items was incurred by the Company wholly out of sums to which it was clearly entitled.[1]

That the Company has consistently earned less than the return fixed as reasonable by the Commission appears from the face of the decision. Table I in the decision shows the rate bases found by the Commission since 1917 and the actual earnings and rate of return thereon (R. 24).

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(1) Even had the Company at some time earned slightly more than the prescribed rate of return, that would not have shown the rates to be unreasonably high. In *Re Southern California Gas Co.*, 24 C. R. C. 33, 38, the Commission held:

> "It is not to be considered unreasonable even if defendant should have earned more than the established rate during the past year, in view of the deficiency of earnings previously experienced."

Footnote 2 to the decision (R. 21) shows the rate of return from time to time allowed in prior rate cases. It will be noted from Commission Exhibit 54 (R. 272) that the deficient overheads were practically all charged in the years ending with 1926 during which the Company had failed by nearly $4,000,000 to earn the return allowed by the Commission itself.[1] This is considerably more than the deficiency in overhead charges, which the Commission said, in footnote 10 of the decision (R. 35) "would mean an increase in rate base for 1930 of approximately $2,750,000, and an increase in annual depreciation expense of approximately $50,000."

It is to be noted that during the only period when, under the Commission's rate making theories, the Company has earned anything like the return allowed (1927-1929), the overheads charged on the books were substantially correct under the evidence herein. It was only during a period when the Company was consistently failing to earn the permitted return (1917-1926) when it would have been to its own advantage to show lower operating expenses that the inaccuracies occurred. The Commission's gratuitous reflection on the good faith of the Company's officers is wholly groundless.

The following table shows the deficiency in earnings below the return allowed by the Commission itself in rate

(1) The overheads charged in 1927, 1928 and 1929, when interest during construction is added, average approximately those claimed by the Company, and are in excess of the amount estimated by the Commission engineers. In fact, the charges in 1928 as made on the books exceeded the amount computed by the Company engineers and correction in the estimates was made therefor. (R. 323)

proceedings, during the period when the inaccurate overhead charges were made on the books:

RATES OF RETURN ALLOWED BY COMMISSION AND ACTUAL RATES OF RETURN RECEIVED BY COMPANY, CALCULATED ON HISTORICAL RATE BASE FIXED BY COMMISSION (AS FOUND IN TABLE I OF DECISION R 24)

		As Found in Decision		Return Allowed by Commission		
Year	Rate Base	Net for Return	Rate of Return Actually Received	Rate %	Amount	Deficiency
1917	$13,039,710	$ 1,114,879	8.54	8.00(1)	$ 1,043,177	$ 71,702*
1918	13,398,711	906,576	6.77	8.00	1,071,897	165,321
1919	13,971,705	1,160,816	8.31	7.87(2)	1,099,573	61,243*
1920	15,211,534	1,207,429	7.94	7.87	1,197,148	10,281*
1921	21,327,234	1,119,569	5.25	8.14(3)	1,736,037	616,468
1922	29,043,144	2,067,732	7.12	8.14	2,364,112	296,380
1923	37,503,113	2,293,835	6.12	8.14	3,052,753	758,918
1924	45,466,184	3,022,031	6.65	8.14	3,700,947	678,916
1925	51,317,326	3,483,519	6.79	8.14	4,177,230	693,711
1926	54,699,052	3,480,761	6.36	8.14	4,452,503	971,742
Accumulated Total		$19,857,147			$23,895,377	$4,038,230[1]

Decision Reference	Effective Date
(1) 13 C. R. C. 724	Aug. 1917
(2) 16 C. R. C. 478	Mar. 1919
(3) 20 C. R. C. 93	July 1921

*Credit.

There is no factual basis for the Commission's claim that the Company "by its conduct and election has created a quasi estoppel" against showing the true cost of its property. Such an estoppel is unknown to the law. Any estoppel

(1) This table covers the period from the first fixing of rates by the Commission (prior overheads being then allowed in an amount approximately that now claimed) and extends to the date of the order requiring natural gas service at reduced rates. (29 C. R. C. 164)

must be based on a course of conduct by which one party gained an advantage and the other incurred a detriment. The Company gained no advantage. During the period in question it was earning less than the rate of return permitted by the Commission. Had correct overheads been charged the discrepancy would have been still greater, since the rate base would have been increased each year. The Company alone was injured by the bookkeeping errors. The consumers were not injured since the Company earned less than the allowed return, even after adjusting the inaccurate book entries.

Although the Commission acknowledged the necessity of adding $155,000 to the overheads recorded on the books for interest during construction, it failed to allow any interest during construction on materials and supplies held for construction. It reduced the allowance for materials and supplies by nearly $700,000 below the amounts previously allowed. Its Assistant Chief Engineer testified, as to these items (R. 245):

> "This deduction has been made because I understand that in the valuation which is being prepared by the Commission interest is being charged on materials and supplies during the time they are in the yard, and has been included in overhead expense. If the rate base finally used does not include interest on materials and supplies while held in the material yard, then a corresponding correction should be made in my figures; the amount deducted either should be included in the rate base or not deducted from the materials and supplies."

As the Commission itself admits that interest during construction is not charged to operating expense (R. 30), this amount should have been added to the overheads, which would result in an addition of approximately $630,000 to the historical rate base. (R. 367)

Although the Commission in its decision implies that 6.35% overheads, used in both its historical and fair value rate bases, are those shown on the books of the Company, this is not the fact. The evidence shows that the overheads charged on the books are in excess of the 6% average shown in Commission engineer Wehe's Exhibit 54. (R. 272) For example, Mr. Wehe testified that in computing the percentages there shown he excluded taxes and interest on land actually charged on the books. (R. 277) A further illustration appears in connection with the first percentage shown, 1.90% for the year 1913. The actual charge on the books for that year was 3.64%, of which 1.74% was for store and tools expense, now generally conceded to be inappropriate for inclusion in the overhead charges, leaving the balance of 1.90% used by Mr. Wehe. This is shown in the testimony of Mr. Masser. (R. 321)

While some of the deductions made by Commission engineer Wehe from the charges actually appearing on the books are debatable, we do not question the propriety of Mr. Wehe's adjustment of the books by eliminating from the books improper charges to capital appearing thereon. The corollary of this proposition is that corrections in favor of the Company must also be made. If the books are found to be inaccurate, as here they are, the inquiry must be addressed to a determination of what property

exists, what it in fact cost, and what is its present fair value. Mr. Wehe and the Commission were quite correct in eliminating improper capital charges appearing on the books. It necessarily follows that the Commission and the court below were incorrect in refusing to add the proper charges, at least to the minimum extent developed by Mr. Wehe's thorough engineering examination, as shown by his evidence, in respect of items which were shown to have been omitted from the capital account.

As shown by the evidence (R. 269), overhead charges are cleared to capital account in a lump sum at the end of the year. It appears that the amounts charged, for the year 1913 for example, were in fact derived from methods now recognized to be improper, but the charge actually appearing upon the books was a lump sum figure. How can it be said that the consumers have been prejudiced or have "paid for" capital overhead items entering into the calculation of the amount which should have been charged on the books, when at the same time there is deducted from the charges actually made (thereby recognizing the propriety of adding such charges to operating expense for that year) a sum which was in fact charged to capital?

Errors of the Court Below Respecting Historical Overhead Costs.

The court below followed the Commission's theory in this respect and its decision incorporates the same legal and factual errors as that of the Commission. In the majority opinion of the court below it is said:

> "It is true that one of the valuation engineers for the Commission testified that the Company might properly have charged to capital 11.25 per cent on

account of overheads. Nevertheless, the action of the Commission in this regard, we think, was reasonable. The fact was that the Company, declining to follow the suggestion of the Commission that it assign to capital a greater amount of overhead expenditures, charged all of such expenditures exceeding approximately 6 per cent of the total thereof to operative expense, with the result that it has had during successive years the benefit of a much reduced net income figure, by the use of which in turn, its rate charges have been increased." (R. 116)

The court also believed that the Company was bound by and could not dispute findings of value made by the Commission in earlier proceedings, saying:

> "Where a utility Company in rate proceedings adopts as correct an amount fixed in an initial order made at the time it came under regulation, it ought not to be permitted to assail that amount at this time on the ground that it is inaccurate." (R. 114)[1]

Thus, on the issue of present fact as to the actual or historical cost of the property presently in use, the court announced as a rule that the true facts could not be shown, but that the Company was concluded by the earlier orders of the Commission. As matter of law, the earlier findings of the Commission were not conclusive upon the Company and it was free at any time to show the true facts (*Arizona Grocery Co. v. A. T. & S. F. Ry. Co.*, 284 U. S. 370).

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(1) The Company has never "adopted" the valuation made by the Commission in the first rate case. On the contrary the decision herein shows (R. 39, 40) that the Company has in all previous rate cases contended for values in excess of those allowed by the Commission.

The court did not seek to ascertain the fact of cost or value, but followed the Commission's theory that the facts could be rejected and their effect ignored upon the basis either of a quasi estoppel or upon the ground that the matter was *res judicata.*

It is interesting to note that neither the court nor the Commission appear to consider the Commission bound by the so-called quasi estoppel of its earlier decisions, for in the instant case the Commission, with the approval of the court, reduced by more than $100,000 per annum the depreciation annuity fixed by the Commission in an earlier case, and by more than $700,000 its previous allowance for working capital, materials and supplies, both made at a time when the Company had much less property ($6,000,000 less) and business than it now has.

The concurring opinion reaches substantially the same conclusion. It finds that the historical basis should be preferred to reproduction cost, as it would be inequitable to permit the Company "to exact from the consumers a larger amount than has been accorded to them by the Commission" (R. 130) and that "in connection with the item of overhead that we are not dealing with a definite item of property such as a gas main, but with a system of bookkeeping and accounting as to which judgments may differ". (R. 131) The opinion also held:

> "We conclude, then, that the Company cannot justly complain of an apportionment of its capital by the disallowance of its present claims of the overhead addition thereto, where the company has already been paid that overhead in conformity with its

own claims that only 6.35 per cent of it represented capital expenditures." (R. 131)

The court below made the same legal and factual errors as did the Commission. In addition it made the further error of misapprehending the nature of the overhead costs under consideration. These are not intangible elements of value, added to the cost or value of physical elements of property, but are an intrinsic part of the cost and value of the physical properties themselves. As said by the court in *Monroe G. & F. Co. v. Michigan P. U. Comm.*, 292 Fed. 139, 148, the overheads "are as much a part of the fair value of the plant, considered on any basis, as are the iron and the bricks." In that case the evidence of the Commission engineers showed overheads at 14%, which was uncontradicted except for the evidence of the Company engineers showing that 20% would be proper. It was held arbitrary for the Commission to ignore that evidence and refuse to allow for the overheads because their cost was not recorded on the Company's books.

When the Commission, and the court below, ignored the uncontradicted evidence that the reasonable and proper overheads were not less than 11.25% and found a rate base by using the inaccurate book entries of 6% with a small addition for interest, thereby fixing a rate base at least $2,750,000 less than would otherwise have been established, their action was arbitrary and the effect of such arbitrary action was to fix a confiscatory rate.

Not since *Smyth v. Ames* was decided has anyone seriously urged that book figures must be accepted as

controlling for rate making purposes. The purpose of the books is to show the facts, but if they fail to do so, regardless of how the error was made or what its effect, they should be corrected and the facts ascertained. The Commission has itself recognized and applied this rule in many cases. In *Re Coast Counties G. & E. Co.*, 24 C. R. C. 69, 76, it held that the Company was charging an insufficient amount to capital for overhead items; that the cost of overheads "is just as much a part of the capital charge as the labor and material" and deducted $10,000 from the company's estimate of operating expense, saying:

> "Such costs have been, and in the future will continue to be included by the Commission in appraisals of the fixed capital in the form of overhead allowances and should not be duplicated by being included in operating expenses."

In *Re Southern California Gas Co.*, 24 C. R. C. 33, it made a similar deduction from operating expense. In *Hopper v. Lassen Elect. Co.*, 37 C. R. C. 830, 834, it found a value on historical cost basis in excess of book costs, based on its engineer's evidence that overheads amounted to 15%, although not entered on the books.

In the 1917 rate case involving this Company, the Commission fixed overheads "approximating those now claimed" despite the fact that in prior years some part thereof had been charged to operation, and the additional overheads so allowed have in fact entered into the historical rate base here found, since that rate base took as its starting point the 1917 appraisal. There can be no possible justification for applying a different rule before and after 1917.

AS A MATTER OF LAW, PAYMENT FOR PROPERTY OUT OF INCOME CREATES NO ESTOPPEL PREVENTING CLAIM FOR VALUE SO CREATED.

The source of the money used by a utility in the construction of its property is immaterial, and values created out of past earnings cannot be disregarded by a regulatory Commission upon the theory that the consumers, and not the company, have created the value. The action of the Commission and of the court below, therefore, in rejecting established overhead construction costs on the theory that a portion of such costs has in the past been charged to operating expenses and paid by the consumer is erroneous as a matter of law, as well as unsupported in fact.

In *Lincoln G. & E. L. Co. v. Lincoln*, 250 U. S. 256, 267, this Court said:

> "Again we question the propriety of the master's treatment of 'going value', which he seems to have estimated at less than otherwise he would have placed it upon the theory that the company's business had been developed at the expense of the public, in the expenditure of past earnings exceeding a fair return upon the capital invested, and this without any finding, or any clear evidence to which our attention has been called, that past earnings were excessive."

Again, in *Board of Public Utility Commissioners v. New York Telephone Co.*, 271 U. S. 23, this Court considered a similar question and held:

> "Constitutional protection against confiscation does not depend on the source of the money used to purchase the property. It is enough that it is used

> to render the service. * * * The relation between the company and its customers is not that of partners, agent and principal or trustee and beneficiary * * *. The revenue paid by the customers for service belongs to the company * * * And the law does not require the company to give up, for the benefit of future subscribers, any part of its accumulations from past operations. Profits of the past cannot be used to sustain confiscatory rates for the future."

The Court cited a number of cases in support of these views and then said:

> "Customers pay for service, not for the property used to render it. Their payments are not contribution to depreciation or to other operating expenses or to capital of the company. By paying bills for service they do not acquire any interest legal or equitable in the property used for their convenience or in the funds of the company. Property paid for out of moneys received for service belongs to the company just as does that purchased out of proceeds of its bonds and stock."

Among the cases cited by the Court as supporting this rule was *Ames v. Union Pacific Ry. Co.*, 64 Fed. 165, where, at page 176, it was said:

> "Property invested in railroads is as much protected from public appropriation as any other. If taken for public uses, its value must be paid for. Constitutional guaranties, to this extent, are explicit; and in such condemnation proceedings no inquiry is permitted as to how the owners have acquired the property, provided only it be legally held by them. * * *

> No inquiry is open as to whether the owner has received gifts from state or individuals, or whether he has, as owner, managed the property well or ill, or so as to acquire a large fortune therefrom. It is enough that he owns the property,—has the legal title; and, so owning, he must be paid the actual value of that property. * * * These propositions in respect to condemnation proceedings are so well settled that no one ever questions them. The same general ideas must enter into and control legislation of the kind before us. The value of the property cannot be destroyed by legislation depriving the owner of adequate compensation. The power which the legislature has is only to prescribe reasonable rates, not any rates."

In *New York Telephone Co. v. Prendergast,* 36 Fed. (2d) 54, the court considered a similar situation where the company had in the past failed to make adequate charges on its books for overheads. The master, to whom the case had been referred found that for this reason the historical cost, as reflected on the books of the company did not represent the value of the property, apart from changes in price level. Various overheads as to which insufficient or no charges had been made to capital were mentioned and the court says, at page 61:

> "Moreover, he found that expenditures associated with construction had been carried on the books as capital items, and had also been charged as annual expenditures, and, although the cost thereof had actually been incurred and paid by the company, the amount paid was not reflected in the book cost of the company's plant * * *. This, together with the un-

questioned increase in value of the property, justified his refusal to accept a book cost as contended for by the defendants. It required a higher valuation and gave justification for the weight given to the reproduction cost new less depreciation."

In *Michigan P. U. Comm. v. Michigan State Tel. Co.*, 228 Mich. 658, 200 N. W. 749, 756, the Supreme Court of Michigan held:

"The Commission made no finding of any amount for going value, stating that the subject had been given such consideration as it was entitled to receive. As we read the opinion of the commission, the consideration given was a denial of anything for going value, for the reason that the cost of attaching business had been paid out of earnings. The special commissioner reported:

'Unless defendant by clear and convincing proof has shown that the expense of attaching business has not been paid in the overhead expenses or otherwise by the public, or, if not so paid, then that the commission has not taken it into consideration in fixing the rate base of fair value of property, the finding of the commission on going concern value must stand. The commission did consider it, and found it had been paid by the public in the operating expense.'

"Assuming that the cost of attaching business has been paid out of earnings, there is no evidence that the funds were not earned lawfully, no evidence that they were not rightfully the property of the company. Considerable or attractive dividends have not been paid. A denial of anything for going value on this ground cannot be sustained. That past high or ex-

cessive rates offer no bar to enjoining a present non-compensatory rate is a question we need not discuss."

See, also:

Consolidated Gas Co. v. Prendergast, 6 Fed. (2d) 243;

City of Minneapolis v. Rand, 285 Fed. 818;

Monroe G. & F. Co. v. Michigan P. U. Comm., 292 Fed. 139, 147.

BOOK ENTRIES ARE NOT CONCLUSIVE IN VALUATION MATTERS.

In *Norfolk & Western Ry. Co. v. United States,* decided at the present term, November 8, 1932 (77 L. ed. 54, Advance Opinions), it was held that an order of the Interstate Commerce Commission, requiring for accounting purposes that certain coal mines owned by the carrier and used solely for locomotive fuel should be classed as non-operative property, could be sustained, and that it was not to be taken as controlling in proceedings involving the value of the property. The Court held (p. 57):

"With great earnestness the appellant characterizes the order as in several aspects a denial of due process. It declares that by virtue of the Commission's mandate an unfair and improper rate base is fixed, and a capital asset properly to be taken into account for purposes of recapture is eliminated. But this is to ignore the fact that the order is one touching accounting merely; that before any rate base can be ascertained or any basis of recapture determined the carrier will be entitled to a full hearing as to what property shall be included; and not until the Commission excludes the

assets in question from the calculation may the carrier assert the infliction of injury to its rights of property. A recapture proceeding is now pending against the appellant, wherein full opportunity will be afforded to present any claims with regard to the inclusion in whole or in part of the mining properties in question.

"We are not convinced by the assertion that the necessary effect of classifying the mines as non-carrier properties is to exclude them from consideration as capital in the issuance of securities. We are not, however, required now to decide this question, for the mere accounting classification can conclude neither the Commission nor the appellant upon the hearing of an application under Section 20a (2)."

SUMMARY.

The minimum historical cost of the Company's property shown by the Commission witnesses is $62,881,765 (including the same amounts as allowed in the decision for material and supplies, working cash capital and 1930 additions to the plant), without going value. The Commission fixed the historical rate base at $60,704,000, without going value. There is a deficiency of not less than $2,177,765.[1] This is without regard to going value or other intangibles and relates to the physical properties only. The error affects not only the value of the property, but the depreciation charge as well, the Commission stating that a depreciation annuity based on the true historical cost would be $50,000 a year greater than the one it fixed and allowed (R. 35).

(1) The Commission estimates the deficiency in respect of the overhead item alone as $2,750,000. (R. 35)

While the Commission here, as in all other rate cases affecting this Company, fixed rates on the basis of historical cost, and used the so-called "fair value rate base" set up in the decision merely as a check as to the confiscatory character of the rates prescribed, the decisions of this Court are uniform in holding that the use of historical cost, or any other evidence of value, as a rigid formula for determining value is erroneous. Historical cost, however, is evidence proper to be considered in determining present fair value. But the historical cost to be considered is the true historical cost shown by competent evidence. It is not a lesser figure shown on the books, any more than it would be a higher figure if shown on the books. It is the value of the property which is to be ascertained, not the condition of the books of account.

When the Commission found the historical cost more than $2,000,000 less than the minimum amount shown by the evidence, it excluded from consideration competent evidence which this Court has held must be considered. And when it used the figure so obtained, without any allowance whatever for going value as the basis for reducing rates fixed less than two years before as just and reasonable, its action was arbitrary. As confessedly the Commission was seeking to barely avoid the point of confiscation, the rates prescribed, because of this error alone, must necessarily be confiscatory.

The quasi estoppel sought to be created against a showing of true cost has no legal or factual foundation, and the refusal of the Commission to consider the evidence of

actual historical cost is an arbitrary act which invalidates the order predicated thereon. The error of the court below was of the same character and requires reversal of its decree.

REPRODUCTION COST.

Evidence of the cost of reproduction of the Company's property was also introduced. The evidence shows that there are no commercial limitations on the earning power of the Company, at least within the limits here involved, and no legal limitation except the requirement that the rates charged should not be so high as to yield an excessive return upon the actual value of the property. Under the existing rates it is able to compete successfully with other fuels. There is no question but that the value of the service creates no limitation here which would prevent the Company earning a return on the full value of its property. Like the water companies referred to by Mr. Justice Brandeis in his dissenting opinion in *St. Louis & O'Fallon R. Co. v. United States*, 279 U. S. 461, 537,

> "* * * under the rule of substantive law declared in the Southwestern Bell Telephone Company Case, practically the only limitation imposed upon water rates is the denial to the utility of rates which will yield an excessive return upon the actual value of the property. In applying that rule of substantive law, the then actual cost of reproducing the plant would (assuming it to be efficient) commonly be persuasive evidence of its actual value, as the current cost of reproducing the vessel was held to be in Standard Oil Co. v. Southern Pacific Co., 268 U. S. 146, 156. * * *"

Both the engineers of the Company and those of the Commission introduced evidence in respect of reproduction cost. Both groups of engineers followed customary methods, and both made their estimates in respect of the same property since both used the same inventory. While differing in respect of the proper cost of reproduction of certain items, the aggregate results reached by each group of engineers differed by only approximately 5% (R. 263). The estimates, and the fair value rate base found by the Commission were:

	Fixed Property Only	Plus Commission's Allowance for M&S etc. ($1,862,103)	Plus Minimum Going Value ($9,228,667)
Reproduction Cost			
Luick (Company)	$77,586,700	$79,448,803	$88,677,470
Dufour (Commission)	73,637,542	75,499,645	No estimate
Fair Value Rate Base			
As found by Commissioner Decoto	73,445,229	75,307,332	81,958,471
As fixed in Decision	**63,637,897**	**65,500,000**	**Rejected**

The record is devoid of evidence tending to indicate that the value of the Company's property is less than what it would cost to reproduce it. The Company is subject to no commercial or legal limitations except that its earnings may not be excessive on the value of its property. Under these circumstances the uncontradicted evidence showing the minimum reproduction cost of the physical property, to be $10,000,000 in excess of the fair value rate base found in the decision, demonstrates the error of the Commission. It was error wholly to reject that evidence and to determine "fair value" by applica-

tion of a rigid formula which ignored the effect of that evidence.

That the Commission gave no weight or consideration to the evidence of reproduction cost is apparent from the decision. It is there said (R. 40):

> "Regulatory bodies, such as this Commission, naturally prefer to deal with actualities rather than theories and assumptions. Actual cost may be determined with a high degree of precision; and the effect upon such actual cost of the simple and single assumption that current prices prevailed during the life of the property may likewise be determined with a definiteness sufficient for the purposes of measuring the effect of higher price levels. Cost with adjustments for changes in price level and allowance for realized depreciation should be and is, for the purposes of this part, taken as a dominant consideration in arriving at a current value of the property here involved. It is deemed a much simpler, safer and more dependable guide than estimates based upon rebuilding the property under a hypothetical construction program under conditions which do not and could not reasonably exist and with farfetched assumptions which make possible almost any result desired by their designer."

After voicing many objections to fair value as a test of reasonable rates and criticisms of reproduction cost estimates, the Commission tells how it arrived at its "fair value" rate base. It says (R. 43):

> "Subject to deduction for accrued and realized depreciation in a sum of approximately $7,650,000, the fair value of the property here involved as a going property with business attached, giving full effect to

> the current level of prices and allowing for any intangible elements of value not fully cared for in the usual and current operating expense allowances but excluding various built up claims of value incident to a reproduction of the property under an assumed reconstruction program as too uncertain and hypothetical to enter into a rate base figure, did not for the year 1928, using round figures, exceed $62,500,000, and for the year 1929 $64,000,000, and for the year 1930 does not exceed $65,500,000, which figures, for the purposes hereof, are spoken of as rate base."

From this statement, it might be concluded that the Commission had given some consideration to the cost of reproduction in arriving at its "fair value" figure. No doubt the Commission after fixing the rates upon the basis of historical cost, as was its uniform practice, intended in this case to fortify its conclusion by demonstrating that the rates so fixed would not be confiscatory when tested against a "fair value" found in accordance with the principles of substantive law announced by the courts. But the result here is that pointed out in the dissenting opinion in the *Southwestern Bell Case* (262 U. S. 276, 296) where it is shown that the rule of *Smyth v. Ames,* intended to be applied as a means of determining whether rates already prescribed by the legislature were confiscatory, and to be applied judicially after the rate has been made, has in fact been made by many commissions their standard for constructive action, and has been applied as a guide for making or approving rates.

> "And the tendency developed to fix as reasonable the rate which is not so low as to be confiscatory.

> Thus the rule which assumes that rates of utilities will ordinarily be higher than the minimum required by the Constitution has by the practice of the commissions, eliminated the margin between a reasonable rate and a merely compensatory rate; and in the process of rate making, effective judicial review is very often rendered impossible. The result inherent in the rule itself, is arbitrary action on the part of the rate regulating body. For the rule not only fails to furnish any applicable standard of judgment, but directs consideration of so many elements that almost any result may be justified."

Here the Commission formally professed to have given due consideration to reproduction costs. Fortunately however the decision itself, Commissioner Decoto's dissenting opinion (R. 70), and the answer of the Commission (R. 91) show that the only consideration which the Commission gave to the cost of reproduction was to reject it *in toto* and to fix its so-called "fair value" by the rigid application of a formula which it denotes "current price level".

WHAT THE COMMISSION DID.

From the Commission's opinion it would appear that this formula, is the measurement of "the effect upon such actual cost of the simple and single assumption that current prices prevailed during the life of the property" and that the Commission arrived at its "fair value" by following this formula.

The Commission used it, supposedly in an attempt to ascertain the present fair value of the Company's prop-

erty, but the correct answer is impossible of attainment by the use of such a formula for it is based upon conditions and premises that never did and never could exist.

However the Commission did not do what it said it did. It did not translate historical costs to present spot prices. What it did do was to take Commission engineer Dufour's reproduction valuation of direct labor and material items based on spot prices of June 15, 1930, and add thereto 6.35% for overheads, this being the incorrect overhead shown on the Company's books. This process is disclosed by the Commission's answer (R. 91) where it is admitted that,

> "* * * in arriving at said current price level cost, said figure was obtained by pricing the inventory items at the prices existing on June 15, 1930, land at its market value as of January 1, 1930, and adding thereto for engineering, etc., a percentage of 6.35 per cent * * *,"

and also by Commissioner Decoto's dissenting opinion. (R. 70)

Cost of reproduction is an estimate of what it would cost to reproduce a property under the conditions and prices existing at the time of the inquiry. Current prices may be above or below the prices existing when the property was in fact constructed; some prices may be higher and some may be lower. But the estimate is based on the construction of the property under modern methods and conditions, with modern machinery and equipment, with auto trucks instead of horses, with excavating machinery instead of pick and shovel, with quantity purchases in-

stead of unit purchases. The result is that the cost of reproduction is in many respects much lower than the historical cost, particularly as respects costs due to methods of construction.

But on the other hand the cost to reproduce contemplates construction of the property, as of the time of the inquiry, in a wholesale manner, and while the result of this is that many of the costs are lowered as compared with piece-meal historical construction, the overhead percentages for engineering, supervision, law, accidents, etc. are inevitably increased, for such services must be performed by a staff which does not devote a part of its time to operations, and the whole cost of whose services must be charged to construction. The result therefore is that while costs based on methods of construction are reduced, overhead costs in relation to direct labor and material are increased.[1]

The Commission when it said it measured the effect on "actual cost of the single and simple assumption that current prices prevailed during the life of the property", actually took Commission engineer Dufour's reproduction estimate without overheads, which was based on all of the economies and lessened costs involved in a present reproduction of the property as compared with its historical construction, and added thereto 6.35% for overheads,

(1) This is reflected by the overhead percentages appearing of record:

	Historical	Reproduction
Commission Engineers	11.25%	22.32%
Company Engineers	14.48	24.27
Used by Commission	6.35	6.35

rejecting its own engineers' estimate of 22.32% for overheads, and using a percentage from the books which was admittedly deficient even for historical overheads. The Commission thus achieved the desired result of being able to state that effect was given to current prices, when in fact all it did was to obtain the benefit of the lower cost of reproduction due to wholesale construction with modern methods, without accepting or giving effect to the higher construction overheads that necessarily must be experienced if the lower costs of reproduction methods are to be taken advantage of.

From this it is quite apparent that the Commission gave no consideration whatever to reproduction costs, but adhered to a formula designed to and which in fact did give a minimum result by combining deficient and inaccurate book historical overhead percentages, with reproduction unit prices fixed on the economy of present construction methods.

ACTION OF THE COURT BELOW.

The court below[1] in the final decree "finds that the values for plaintiff's property as fixed and determined

(1) Although the majority opinion of the court below states (R. 113) that "the method employed to obtain present costs as of June 15, 1930, was to take the 1915 appraisement as used by the Commission at the 1917 hearing, and add thereto the cost of all articles and property included in additions and betterments, as those items were particularly shown on the books of the Company, and then convert such cost prices to ruling price levels as of June 15, 1930," it is evident that this statement is in error, since in the answer of the Commission, (R. 91) "Defendants admit that a dominant consideration was accorded the current price level cost estimate of plaintiff's properties in arriving at said fair value estimate, and that in arriving at said current price level cost, said

by the defendant Railroad Commission are the reasonable values thereof." (R. 204) In the majority opinion it says:

> "What the Commission did then in reaching its base rate figure of fair value was to include all items of property used and useful in the operative plant of the plaintiff, and appraise the value thereof at current market prices." (R. 113)

After referring to the rejection by the Commission of going value and other intangibles the court below says:

> "Basically, the object of an appraisement for rate making purposes is to find the full value of the investment in the business. The investment is represented by the value of the property used and necessary in the business—not what it would cost to promote and establish a like business starting today." (R. 117)

It is apparent from these expressions that the court below approved the methods used by the Commission and, like the Commission, refused to consider the evidence of cost of reproduction. It did this upon the erroneous theory that what it was called upon to ascertain was the investment in the property and not the value of the property.

The concurring opinion, while recognizing the duty to give consideration to evidence of reproduction cost, erro-

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figure was obtained by pricing the inventory items at the prices existing on June 15, 1930, land at its market value as of January 1, 1930, and adding thereto for engineering, etc., a percentage of 6.35 per cent." The method described by the court was substantially that followed in fixing the historical cost, but no such method was followed in fixing the "fair value" rate base.

neously assumes that the court is at liberty to isolate costs in respect of different classes of property, to choose historical cost as to some, cost of reproduction as to others and book entries, whether or not accurate, as to still others. That opinion also errs in assuming that it is possible to treat overhead costs as something wholly independent of and apart from the physical properties to which they pertain, and therefore concludes "that in choosing between the cost of reproduction overhead and the historic cost overhead the Commission was justified by the action of the Company with reference to overhead in accepting the Company's own historic contention with reference to overhead, that is, in acting upon its admission with reference thereto fixing it at 6.35 per cent and in rejecting the overhead which reasonably would be included at a higher percentage (22.32 to 24.27 per cent) of the reproduction cost." (R. 135)

THE LAW.

The "rule of substantive law" was enunciated in *Smyth v. Ames*, 169 U. S. 466, and, as said in *St. Louis & O'Fallon R. Co. v. United States*, 279 U. S. 461, 485, the doctrine there stated "has been consistently adhered to by this Court." In that case, at page 484 the rule is repeated, with reference to most of the cases following it:

> " 'The elements of value recognized by the law of the land for rate-making purposes' have been pointed out many times by this court. (Citing cases) Among them is the present cost of construction or reproduction."

It is apparent from these cases that what must be considered by any commission or court passing upon the

confiscatory character of rates is "the then actual cost of reproducing the plant" which, assuming the plant to be efficient, and there is no question here as to the efficiency of the Company's plant, "would commonly be persuasive evidence of its actual value, as the current cost of reproducing the vessel was held to be in Standard Oil Co. v. Southern Pacific Co., 268 U. S. 146, 156" (*O'Fallon Case,* supra, at p. 537).

This kind of evidence was rejected by the Commission here, and that rejection was approved by the court below. This is error of law. It, alone, is enough to invalidate the order of the Commission and to require reversal of the decree of the court below. In *Bluefield W. W. & I. Co v. Public Service Comm.,* 262 U. S. 679, 689, this Court found:

> "The record clearly shows that the Commission, in arriving at its final figure, did not accord proper, if any, weight to the greatly enhanced costs of construction in 1920 over those prevailing about 1915 and before the war, as established by uncontradicted evidence; and the company's detailed estimated cost of reproduction new, less depreciation, at 1920 prices, appears to have been wholly disregarded. This was erroneous."

Without undertaking to find what value should have been found in that case this Court held that the order should be reversed, saying (at page 692):

> "The valuation cannot be sustained. Other objections to the valuation need not be considered."

THE ERRORS OF THE COMMISSION AND OF THE COURT BELOW.

The Commission, in voicing its criticism of evidence of reproduction cost, and the court below in apparently endorsing that criticism, fell into two errors, one of law and the other of fact. The error of law is that they ignored the explicit holding of this Court that "* * * it is that property, and not the original cost of it, of which the Company may not be deprived without due process of law" (*Minnesota Rate Cases,* 230 U. S. 352, 454). The Commission showed its reluctance to depart from a fixed formula of rate making in insisting that everything be clearly related to original cost. The court below apparently endorsed that attitude. Value, which is "the basis of all calculations as to the reasonableness of rates" was ignored because it was thought not to have a sufficiently definite relation to cost.

The error of fact is that the competent evidence which the Commission had before it in respect of cost of reproduction, far from indicating any wide disparity of results, dependent upon varying assumptions and their application to the situation of this Company, indicates very clearly that competent engineers, can, and did in this case, determine the cost of reproduction within a very narrow range of difference, less than 5% of the total cost determined by the two sets of engineers. The differences found, admittedly were due to differences in engineering judgment and as stated by the Commission engineer, Dufour, in respect of one of the larger items of difference;

> "Competent valuation engineers, in analyzing this account, might differ in respect of the final result, al-

though both had followed accepted methods. Different methods may be followed and it is not possible to say that either one is wrong. I think they are both all right for a rate proceeding." (R. 265)

While it is true that the exhibits of the Commission engineers in respect of reproduction cost showed nine different sets of figures[1] the Commission engineers testified to and gave but one estimate of the cost to reproduce the property. The figure so testified to was, for fixed properties only, the sum of $73,637,542 (R. 254) as compared with the Company engineers' figure of $77,586,700.

Commission engineer Wehe developed the overhead percentages used in the Commission's exhibits. We have already shown how he testified that the 11.25% historical overhead was developed by him from a detailed study of the Company's records and practices. He testified with respect of the reproduction overhead (22.32% used by Mr. Dufour):

"The overheads used in Exhibit 52 in respect of reproduction cost new estimates are those which I recommended and which Mr. Dufour, Mr. Guillou and Mr. Mott (Chief Engineer of the Commission) con-

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(1) These resulted from the application to the inventory items of three sets of prices and to each set of prices three different overhead percentages as follows:

Prices. 1. Four year average prices ending Dec. 31, 1929.
2. Spot prices Dec. 31, 1929.
3. Spot prices June 15, 1930.

Overheads. 1. 6% as derived from inaccurate books.
2. 11.25%, the percentage which could properly have been charged on the books historically.
3. 22.32% reconstruction overheads (21.64% in the spot price showings).

sidered and found reasonable, and in conformity with overheads used by the Commission engineers in prior proceedings affecting the Company." (R. 278)

Mr. Dufour, the valuation engineer of the Commission and the witness who introduced all of these calculations, testified before the Commission:

> "Assuming that there is no property in existence, that reproduction new means reproducing a property, it is my opinion, as an engineer, that the reproduction cost new of the physical property as of December 31, 1929, is $73,637,542, the amount shown in Column B-5 of Exhibit 52. This figure does not include any allowance for going value except as it may be reflected in historical cost * * * There is no separate figure included for such going value and no attempt has been made by me or my department to measure a going value of the property in this case." (R. 266)

Mr. Dufour made an affidavit which was filed in the court below on hearing of the motion for interlocutory injunction. In that affidavit he repeated his opinion as to the cost of reproduction. He said:

> "Affiant further states that the theoretical cost to reproduce new plaintiff's gas properties as they existed December 31, 1929, assuming a four year construction period, January 1, 1926 to December 31, 1929, and applying average prices prevailing during said period and overhead charges in the amount of 22.32 per cent, is $73,637,542, undepreciated * * * ." (R. 462)

Nowhere in his testimony before the Commission, nor in his affidavit in the court below, did Mr. Dufour, or any

other witness for the Commission, testify that any other calculation shown in the record represented his judgment or opinion as to the proper cost of reproduction. The figure of $73,637,542, derived as above stated, is the only estimate of the cost of reproduction, other than that of Mr. Luick (for th Company) who placed the reproduction cost of the physical property at $77,586,700. (R. 377) These two figures were the only competent evidence before the Commission or the court on that question. Both were derived by the use of accepted methods. To ignore them was error. They were ignored both by the Commission and by the court below upon the wholly untenable grounds that evidence of present value should be disregarded and cost taken as the controlling factor, and that other calculations appearing in the record, unsupported by testimony, indicated such a wide disparity of result as to put in question the intrinsic soundness of all evidence of reproduction cost.

In *Ohio Utilities Co. v. Public Utilities Comm.*, 267 U. S. 359, 362, reproduction value, is defined as follows:

> "The item of $5,000 seems to have been rejected upon the ground that there was no proof of actual expenditure. Reproduction value, however, is not a matter of outlay, but of estimate, and should include a reasonable allowance for organization and other overhead charges that necessarily would be incurred in reproducing the utility. In estimating what reasonably would be required for such purposes, proof of actual expenditures originally made, while it would be helpful, is not indispensable. * * * That such expenditures in a substantial amount would necessarily be made in reproducing the utility is clear; it is not

suggested that the estimate of the engineers is excessive or unfairly made; and the rejection of the entire amount cannot be regarded as otherwise than arbitrary."

The action of the Commission here was equally arbitrary. Competent evidence of reproduction cost (including that of its own engineers showing a value at least $10,000,000 in excess of the amount fixed by it) was rejected because not sufficiently related to cost. The issue is as to value, not cost, and under the circumstances here present "The current cost of constructing then a plant substantially like the utility's (assuming it to be efficient) would be persuasive evidence of its actual value" (*O'Fallon Case*, supra, at p. 538).

HISTORICAL COST ADJUSTED TO CURRENT PRICE LEVEL COST, IS NEITHER REPRODUCTION COST NOR FAIR VALUE.

What the Commission calls "current price level cost," to which it attributed dominant weight in its so-called "fair value" valuation of the Company's property, is shown by the opinion of the Commission and by the testimony of its own engineers not to be the reproduction cost of the property, fair consideration of which is essential to the validity of any valuation of public utility property.

The basis for the Commission's purported finding of current price level costs to which it gives dominant consideration in the ascertainment of fair value, is Commission engineer Dufour's Exhibit 52, sheet 4, a tabulation using June 15, 1930 "spot" prices for labor and materials,

with overheads at 6%.[1] It will be noted that the tabulation there involved is compiled as a reproduction new estimate and in its compilation Mr. Dufour followed customary practices in making a reproduction cost estimate. Mr. Dufour did not indicate by any testimony that the price level used in that tabulation fairly represented the cost of reconstruction of the Company's property under any properly assumed reconstruction program, nor did he testify as to the propriety of using the 6% overheads which the Commission used in its decision, increasing them to 6.35% on account of certain inescapable omissions which appear of record.

The direct labor and material item was based upon a reproduction cost study made up in the customary manner in which such studies are made. The engineers determined the time required to reconstruct the entire plant in the most efficient manner. The estimate of cost is based on the construction of the plant as a unit and the purchase of necessary materials in quantities suitable to the size of the undertaking. The use of present day methods and appliances in estimating cost of construction is necessarily contemplated.[2] Such a method has no relation whatever to the manner in which the property was actually constructed historically.

This was graphically illustrated by Commission engineer Dufour when he testified that the historical cost of

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(1) Compare Commissioner Decoto's dissenting opinion (R. 70) with Exhibit 52, Column B-15. (R. 256)

(2) As pointed out in *Southwestern Bell Tel. Co. v. Public Service Comm.*, 262 U. S. 276, 299, "* * * even after the price level had begun to rise, improved machinery and new devices tended for some years to reduce construction costs."

transporting men and materials in setting gas meters was 62½% of the labor cost, whereas he used 20% and the Company used 43.2% in their respective reproduction appraisals. (R. 266) Mr. Dufour also testified, that, while historically, a light truck was used for each man (this for the reason that it only requires one man to set a meter, and under historical conditions the locations at which meters are to be set are widely separated), under the reproduction cost basis one truck would be used for each three men (this for the reason that it was assumed meter setters could go from house to house). (R. 266) Under such a program more meters per man day could be set, as a great deal of travel time, actually experienced historically, could be eliminated.

Mr. Luick, the Company's engineer, testified that the historical cost of production capital was "considerably in excess of the cost estimated for reproduction new". (R. 368) He explained this was due to the fact that, historically, much of the structural steel was erected while the generators, boilers and the balance of the plant were in operation, whereas under a reproduction program men would not be working around and over hot generators, boilers and moving machinery. Therefore a substantially higher labor efficiency would result. On a reproduction cost basis the quantities of excavation work for foundations under structures and equipment are substantially smaller than actually experienced historically for the reason that, due to additions made from time to time, the amount of excavating done was greater than would be required if the structure or equipment were reproduced at one time. (R. 365) The purchase of larger quantities of

material, such as would occur in the reproduction program, permits the obtaining of better prices which are not reflected in the historical cost estimate (R. 378), and here again the use of such a study does not in fact reflect the application to actual cost of present day prices.

The foregoing items are illustrative of the many items affected by relatively lower material, labor and transportation costs when comparing a reproduction appraisal against historical cost, and which result, as to many substantial items, in reproduction cost much lower than the historical cost.

"Current price level" is shown by the evidence we have been discussing and by the testimony of the Commission's own engineers, not to be, in any sense, the reproduction cost which the decisions say must be considered. At the hearing before the Commission, Mr. Torrey, one of its own engineers, testified (R. 229), that "a translation of book figures to current price levels is not a reproduction estimate at all." The affidavit of the Commission's Valuation Engineer, Dufour, filed in the court below (R. 458-462), carefully distinguishes between current price level costs and reproduction costs. The only estimate which Mr. Dufour characterizes as a reproduction estimate is that based on four-year construction and pricing period with 22.32% overheads, a figure which we have shown above as being the reproduction cost estimate of the Commission.

The particular tabulation used by the Commission as the basis for its decision was unsupported by any testimony of record as to its propriety as a measure of the cost or value of the Company's property

and is not entitled to be considered as evidence for any purpose. But, apart from this inherent defect, the use of such a study was, from the nature of things, improper in the ascertainment of the cost of the Company's property in terms of present day prices. It follows that the finding of such cost by the Commission was unsupported by any evidence. Being unsupported by evidence and founded upon erroneous theories of law the Commission's determination of fair value is nothing but an arbitrary fiat, a denial of due process of law. (*Northern Pacific R. Co. v. Department of Public Works,* 268 U. S. 39.)

A somewhat similar attempt of the New York Commission to transform actual cost to reflect so-called normal prices, was characterized by the statutory court in *New York Telephone Co. v. Prendergast,* 300 Fed. 822, 825, as "opinion evidence of rather a poor kind." Finding that the New York Commission gave dominant consideration to that testimony, and "deliberately laid aside as unimportant the serious consideration of reproduction cost," and recognizing that all evidence as to value is more or less a matter of opinion, the court says:

> "We do not attempt to make any finding as to the potency or persuasiveness of the opinion evidence adduced before the commission, but do hold it to be an erroneous method of procedure, in the ascertainment of present value (citing cases) to regard book costs, whether transmogrified to 'normalcy' or not, as proof of a better kind than opinion evidence."

We find, therefore, that what the Commission called "current price level cost" is neither historical cost, nor

reproduction cost, nor fair value. The Commission claims that it is historical cost adjusted to current price levels. The testimony, affidavits and admissions show that it is nothing of the kind. They show that it is reproduction cost for direct labor and materials using "spot" prices for June 30, 1930, less the difficulty factor, plus overheads of 6.35% for indirect construction costs, overheads which are hardly half the reasonable historical overheads testified to by the Commission engineers and less than one-third of the reasonable reconstruction overheads testified to by the Commission engineers. We have, therefore, an utter disregard by the Commission of the cost of reproduction, and the adoption by it as the "dominant" factor of valuation, of an arithmetical combination of diverse elements which can furnish no legal base for any finding of value.

REPRODUCTION OVERHEAD COSTS.

The principal difference between the Commission's fair value estimate and the reproduction cost estimate of its engineers is in the item of overheads. The difference is $9,144,988, made up as follows:

Overhead included in reproduction cost estimate (Dufour, Ex. 52, column B-5, (R. 254)	$12,684,910
Overhead included in fair value found in decision. (R. 71)	3,539,922
Difference	9,144,988

The remaining amount of difference, approximately $850,000 is due to the use as a basis for the calculation of "current price level cost" of a reproduction study which

is wholly inconsistent with the theory sought to be applied as heretofore pointed out.

As already shown the estimate of reproduction cost which must be considered in determining fair value is "a matter of estimate and not of outlay". The engineers of the Commission in conference determined what overhead costs would reasonably be incurred in connection with a reproduction of the property. They found that 22.32% of the cost of direct labor and materials was a reasonable sum. The Company engineers found it would be 24.27%. There was no evidence whatever that any less percentage than 22.32% would be proper. The evidence was rejected, not because it was inherently untrustworthy, not because it was contradicted by evidence that any less sum was proper, not because such amount would not reasonably be expended in reproducing the property, not because it was not a proper element to be considered in determining what the property was presently worth. It was rejected solely because during the years 1913-1929 the Company had inaccurately recorded on its books of account a lesser percentage of direct costs for overhead construction expense.

Certain of the overhead items, necessary to be considered in a reproduction cost estimate, never appear upon the books. Errors, omissions and contingencies estimated by the Commission engineer at 2% (R. 278) are clearly of this character. This percentage covers in part the omissions which inevitably occur in the preparation of a physical inventory. The value figure of the Commission engineers was arrived at by the use of such an inventory, yet no allowance whatever was made by the Commission to cover such omissions; this because the book

overheads (which have nothing whatever to do with an inventory) did not include such an item. The Company's books show only dollars and not property. The Company has no property ledger and any inventory, because much of the property is underground, is necessarily incomplete. This was recognized by the engineers of the Company (R. 365) and by the Commission engineers. (R. 303)

Interest during construction, estimated by the Commission engineer at 8.32%, (R. 279) is an item which is never charged to operation. The 6.35% overhead used by the Commission for all overheads is only three-fourths of the amount which the Commission engineer testified would be chargeable for the item of interest alone, an item clearly not reflected in operating expenses or "paid by the consumers".

We have already discussed the inaccuracy of the book accounts in respect of historical overheads. The perpetuation of that inaccuracy by determining reproduction cost through the use of those inaccurate, and insufficient, overheads is patent. True historical overheads would be no proper measure of the cost of reproduction. Insufficient overheads, mistakenly recorded on the books, amounting to hardly half the true historical cost, obviously have no relation whatever to the question of value of the property which is the issue before the court.

These differences in overhead costs were recognized by the Commission engineers. They are elementary principles, acquaintance with which is necessary to the exercise of that "reasonable judgment, having its basis in a proper consideration of all relevant facts", which, in *Minnesota Rate Cases,* supra, was held must be given in cases of this

kind. These elementary principles were ignored in the Commission's decision, and the court below approved its course in so doing.

Past accounting errors or inaccuracies can have no evidentiary value when determining the present cost of reproduction, or the present fair value of the property. In *McCardle v. Indianapolis Water Co.*, 272 U. S. 400, 404, it appeared that:

> "The accounting of complainant and its predecessor was defective in that there was not a careful division of expenditures between capital account and operating expenses."

Nevertheless this Court found that the value could only be determined by a fair consideration of the current cost of reproduction, and held the order of the Indiana Commission, which had failed to give due weight to such evidence, void.

It is the present value of the property and not the inaccuracies of accounting that is the fact to be found. Values cannot be wiped out by accounting methods. Mistakes made by the Company in its accounts afford no basis for rejection of competent evidence of reproduction cost, as was done in this case.

GOING VALUE.

The Commission included no allowance for going value in the rate bases which it used to support its finding that the existing rates are unreasonably high, and that the reduced rates will yield a fair return. It refused to make such allowance despite the fact that the record is replete with evidence showing that the Company's property has a substantial going value, and despite the fact that the Company produced witnesses of unquestioned experience and qualifications who appraised such value and testified that it amounted to not less than $9,228,667. Neither the Commission engineers nor any other witness controverted the testimony of the Company's witnesses as to the existence or amount of going value, and they made no attempt to measure or appraise that element of value.[1]

The decision does not question the existence or amount of going value as testified to by the Company's witnesses. However, the Commission expressly refused to make any allowance therefor. It attempted to justify this course by reference to its "cost" formula, saying:

> "And it would seem that what it did cost this Company to attach its business is a far more reliable guide than an estimate of what it might cost under a theoretical reconstruction program. By the prescribed accounting rules all costs incident to attaching business are required to find lodgment in New Business Expense. * * * Were new business expense to be added to capital the corollary would be its elimination from operating expense * * *.

(1) Commission engineer Dufour testified, "There is no separate figure included for such going value and no attempt has been made by me or my department to measure a going value of the property in this case." (R. 266)

> "Substance rather than form is to be considered. So viewed, this Commission does allow for the so-called intangible going concern value by treating its cost as a current operating expense." (R. 41, 42)

The majority opinion of the court below approves this course of the Commission, saying:

> "The large amounts claimed by the company for * * * cost of attaching business (going concern value) $9,228,667 * * * we think were properly rejected as for their total amounts." (R. 117)

The concurring opinion does not agree with this view. It is there said:

> "It is thoroughly established that the company is entitled to have considered as part of the fair value of its property an intangible which is classed as 'going concern value', that is to say, it is something in addition to the bare bones of the plant which would result from the physical reconstruction thereof. * * * (R. 135)
>
> "The Railroad Commission expressly refused to make any specific allowance for going concern value. This is directly in the teeth of the decisions of the Supreme Court * * *. It did, however, contend that all the elements making up going concern value had been paid for out of the current expenses of the company, notably the cost of attaching business and had thus been allowed. (R. 135)
>
> "Regardless of how the company acquired the going concern value, it is entitled to have that value considered as a part of its investment * * *. Going concern value is something like the unearned increment of real estate. It is partly the result of the expendi-

> tures of the company, partly the result of the growth of the city, partly the result of the efficiency of management, partly the result of reputation of the company in its financial affairs, and the skill of its employees in so utilizing the property as to produce a reasonable revenue therefrom. We conclude that there are some elements of going concern value not included in the valuation of the company's property." (R. 137)

Although the concurring judge recognized that going concern value existed in the property in a substantial amount, he made no attempt to find its amount, but excused the error of the Commission in excluding it from consideration, upon the theory that there were compensating errors in favor of the Company that should be sufficient to cover it, such compensation being found in,

1. The Commission having allowed a net return "in excess of the cost of bond and preferred stock money", which excess accrued to the common stockholder, and in effect amounted to a return on going value;

2. The Commission having fixed the accrued depreciation at $7,650,000, whereas the depreciation, measured by the Company's depreciation reserve, would be $9,350,689. A margin of value equal to this difference was thus provided to cover, in part, an allowance for going value; and

3. The difference between the fair value rate base fixed by the Commission ($65,500,000) which is undepreciated, and a depreciated rate base, which would provide $7,605,017 to cover going value.

The Commission and the majority of the court below clearly erred in refusing to make any allowance for going value and in ignoring the uncontradicted evidence that it exists in an amount not less than $9,228,667.

THE LAW.

It would now seem hardly necessary to cite authority in support of the proposition that going value must be included as an element in the fair value of property devoted to public service.[1] As is said in *McCardle v. Indianapolis Water Co.*, 272 U. S. 400, 414:

> "The decisions of this court declare: 'That there is an element of value in an assembled and established plant, doing business and earning money, over one not thus advanced, is self-evident. This element of value is a property right, and should be considered in determining the value of the property, upon which the owner has a right to make a fair return when the same is privately owned although dedicated to public use.' *Des Moines Gas Co. v. Des Moines*, 238 U. S. 153, 165; *Denver v. Denver Union Water Co.*, 246 U. S. 178, 191, 192.

(1) Substantial allowances for going value have been made in the following cases before this Court:

Bluefield W. W. & I. Co. v. Public Service Comm., 262 U. S. 679;
Denver v. Denver Union Water Co., 246 U. S. 178;
Des Moines Gas Co. v. Des Moines, 238 U. S. 153;
Fort Smith v. S. W. Bell Tel. Co., 270 U. S. 627, aff. 294 Fed. 102;
Georgia Ry. & Power Co. v. R. R. Comm., 262 U. S. 625;
Knoxville v. Knoxville Water Co., 212 U. S. 1;
Lincoln G. & E. L. Co. v. Lincoln, 250 U. S. 256;
McCardle v. Indianapolis Water Co., 272 U. S. 400;
Omaha v. Omaha Water Co., 218 U. S. 180.

"And see *National Waterworks Co. v. Kansas City*, 62 Fed. 853, 865; *Omaha v. Omaha Water Co.*, 218 U. S. 180, 202, 203, and cases cited."

Allowances for going value have been uniformly allowed in confiscation cases in the lower Federal Courts, where the issue was involved, and evidence showing its existence and amount has been adduced.[1]

An examination of the decisions of various state commissions, as reported in the Public Utility Reports, reveals that allowances for going value are made by the regulatory bodies in the following states: Alabama, Colorado, District of Columbia, Georgia, Idaho, Illinois, Indiana, Kansas, Maine, Maryland, Michigan, Missouri, Montana, Nebraska, New Hampshire, New Jersey, New Mexico, New York, North Dakota, Oklahoma, Pennsylvania, Rhode Isl-

(1) The list of cases in the lower Federal Courts in which substantial allowances for going value have been made is too long to be given here, but the following cases involving gas utility valuations may be mentioned:

	Per cent allowed for going value
Brooklyn Borough Gas Co. v. Prendergast, 16 Fed. (2d) 615	9.6
Citizens Gas Co. v. Pub. Ser. Comm., 8 Fed. (2d) 632	12.8
Consolidated Gas Co. v. Prendergast, 6 Fed. (2d) 243 (Aff. 272 U. S. 576)	10.0
Columbus Gas Co. v. Columbus, 17 Fed. (2d) 630	11.2
Mobile Gas Co. v. Patterson, 293 Fed. 208 (Aff. 271 U. S. 131)	11.1
Monroe G. & F. Co. v. Mich. P. U. C., 11 Fed. (2d) 319	9.2
New York and Rich. Gas Co. v. Prendergast, 10 Fed. (2d) 167	14.0
Pacific Gas & Elec. Co. v. San Francisco, 273 Fed. 937	12.0
United Fuel Gas Co. v. Pub. Ser. Comm., 14 Fed. (2d) 209 (Aff. 275 U. S. 322)	10.8

and, Tennessee, Utah, Virginia, Washington, West Virginia and Wisconsin.

THE EVIDENCE OF GOING VALUE.

That the Company has a substantial going value because the bare bones of its properties have been co-ordinated into an efficient working organism and there has been developed a substantial and growing business, clearly appears from the testimony. The Company is admittedly well designed and located. It is in a large and growing community. It supplies a commodity for which there is an active demand existing and being developed by advertising and solicitation in competition with other fuels. It has over 350,000 customers attached to its system. Its public relations and its credit are good. It is earning money at rates which are low in comparison with the average of other cities of the same size. It has an efficient personnel and an excellent system of records. It is efficiently and economically operated. Its earnings (within any limits here involved) are subject to no commercial limitations and only to the restriction imposed by law that it will not be permitted to earn an excessive return on the fair value of its property. The rates now in effect are the lowest in the history of the Company, and these rates produce the net profits which the Commission contends are excessive. (R. 356, 392, 410).

In *McCardle v. Indianapolis Water Co.*, 272 U. S. 400, 414, this Court considered what factors go to establish going value, quoting from the report of the Public Service Commission, as follows:

> "Any reasonable man with a knowledge of this property and the local conditions would unhesitatingly

affirm that it had a value far in excess of the value of the pipe, buildings, grounds and machinery. Consider its earning power with low rates, the business it has attached, its fine public relations, its credit, the nature of the city and the certainty of large future growth, the way the property is planned and is being extended with the future needs of the city in view, its operating efficiency and standard of maintenance, its desirability as compared with similar properties in other cities and with other utilities of comparable size in this city. These things make up an element of value that is actual and not speculative. It would be considered by a buyer or seller of the property or by a buyer or seller of its securities."

The Court concluded (p. 415):

"The evidence is more than sufficient to sustain 9.5 per cent for going value. And the reported cases showing amounts generally included by Commissions and courts to cover intangible elements of value indicate that ten per cent of the value of the physical elements would be low when the impressive facts reported by the commission in this case are taken into account."

Every factor mentioned in the *McCardle Case* as establishing the existence of a substantial going value is by the evidence herein, shown to be present as to the property of the Company.

Going Value Best Proved by Competent Expert Testimony.

Being intangible, the appraisal of going value is necessarily a matter of opinion. It is peculiarly the subject of expert engineering testimony. Not only does the evi-

dence contain facts which show the existence of going value in a substantial amount, but the amount of that value was appraised and measured by Colonel Alten S. Miller and A. J. Luick, who testified on behalf of the Company. Both of these witnesses have had long and varied experience in the design, construction, operation, purchase and sale of gas utility properties. Their qualifications are set forth in detail in their testimony.

Colonel Miller's qualifications in this field are of the highest order. From his graduation in 1888 at Stephens Institute of Technology, he has been almost continuously identified with the gas utility industry, occupying various positions with operating companies from superintendent and engineer to that of general manager and president. In addition, he has designed and built, purchased, owned and sold gas utilities. He has frequently testified in rate and valuation proceedings as to the going value of gas utility properties. (R. 400) Among the cases in Federal courts involving gas rates, in which Colonel Miller gave testimony as to going value, and in which substantial allowances of such value were made, based upon his testimony, may be noted the following: *Consolidated Gas Company v. Prendergast,* 6 Fed. (2d) 243; *Kings County Lighting Company v. Prendergast,* 7 Fed. (2d) 192; *New York and Richmond Gas Company v. Prendergast,* 10 Fed. (2d) 167; *Brooklyn Borough Gas Company v. Prendergast,* 16 Fed. (2d) 615; and *New York and Queens Gas Company v. Newton,* 269 Fed. 277, 258 U. S. 178.

Likewise, the training and experience of A. J. Luick in the public utility field is of such outstanding character as to impart conviction to his judgment and opinion on

this subject. Since his graduation from the University of Wisconsin in 1907, he has been active not only in the design, construction, operation, management and purchase and sale of public utility properties, but also in the valuation of, and formulation of rates for such utilities. He has testified in many valuation and rate cases, and has acted as consultant for, and testified in behalf of, public regulatory commissions as well as utilities. (R. 362)

Col. Miller testified (R. 411) that in his opinion the going value of the property is at least $9,228,667, basing that opinion in part on what it would cost to reproduce the business of the Company, without regard to the value of its established organization and earning power. Mr. Luick gave as his opinion that the going value is at least $10,000,000, saying that he reached that conclusion as a judgment figure, in the light of his experience, after a careful and detailed examination of the property and business, and a consideration of the gross earnings, the value of the physical property and the costs per meter to attach business, without attributing any specific weight to any of the guides mentioned. (R. 392) He stated that he did not consider past deficiencies of earnings as constituting or measuring going value. (R. 396)

The testimony of both these engineers is addressed to the appraisement in money of the going value. It is in no sense an inclusion in the rate base of early losses or of good will as suggested by the Commission. Using the cost to reproduce the business as a guide to an opinion as to the value of the going business is not making past losses, actual or assumed, the measure of the value. It is a

recognition of the fact that to build up the present business of the Company anyone reproducing its property would necessarily have to pay interest on the investment while the business was being built up, just as in respect of the physical property it is recognized as being proper to include interest on the money invested during the period of construction.

Mr. Luick's opinion is clearly not a capitalization of the earnings of the Company. It is a matter of judgment based on a number of factors, none of which is controlling. That Mr. Luick did not base his opinion upon any assumed continuance of the existing rates of the Company is manifest from his acquaintance with the continued recurrence of rate fixing proceedings before the Commission, mentioned in its decision (R. 21), including the institution of this proceeding within ten months after the rates of the Company had been reduced by the Commission to their present level. Under such circumstances it cannot be assumed that Mr. Luick intended to predicate his opinion upon any capitalization of the present earning power of the Company. As shown by his testimony (R. 392) and the Commission's Table II (R. 26), the application of the gross revenue method would have resulted in a going value 60% higher than he attributed to the property. The specific appraisal of the going value is primarily a matter of informed judgment. As held in the *McCardle Case,* supra, it may be measured by what a willing buyer and a willing seller of the property would arrive at by fair negotiation. Mr. Luick testified (R. 392):

> "In arriving at my opinion of the amount of going value I have relied upon my experience in the ap-

praisal of such properties for the purpose of issuing securities, for rate making and for purchase and sale, as well as my knowledge of prices which willing buyers will pay for public utility properties in excess of the cost of reproduction of the physical property after due allowance for depreciation."

He also said (R. 390):

"I am familiar with the purchase and sale of properties of this character and I can take the property of this Company and sell it to two different purchasers for much more than the reproduction appraisal, including an adequate allowance for going value."

The Evidence of the Character Submitted Is Recognized as Furnishing a Proper Basis for Appraising Going Value.

In *Pacific Tel. & Tel. Co. v. Whitcomb,* 12 Fed. (2d) 279, 284, the court decided that the master, in appraising going value, " * * * rightly held that this item of value rests largely in competent or expert opinion * * * ." In *Westinghouse E. & M. Co. v. Denver Tramway Co.,* 3 Fed. (2d) 285, 298, the court said that the company had offered three competent experts on this subject and the city, like the Commission in this case, "declined to offer any proof." The court held that it should accept the lowest amount named in the testimony. In *Ohio Utilities Co. v. Public Utilities Commission,* 267 U. S. 359, disregard of uncontroverted opinion evidence was held to be erroneous.

In the master's report, which was affirmed by the court, in *Kings Co. Lighting Co. v. Prendergast,* 7 Fed. (2d) 192, 200, the definitions of going value and the evidence used to establish it are reviewed, the master concluding:

"It is obvious that the element of value as here considered cannot readily be proved by direct evidence because of the intangible nature of such element of value. Col. Miller is a man of wide experience, with a knowledge of the development and maintenance of a gas business that qualifies him to present an opinion that is entitled to weight. I have considered carefully his testimony in this respect, and, in connection with my conclusion on the value of other elements of property herein, I deem an allowance of $800,000 as reasonable for going value to be considered as a part of the rate base herein."

In the master's report in *Brooklyn Borough Gas Co. v. Prendergast,* 16 Fed. (2d) 615, 636, the evidence as to the measurement of going value is exhaustively analyzed. It is there shown that going value was measured in part by methods identical with those used by Col. Miller in this case. The cost of training personnel, of advertising and of setting new meters was estimated and the interest charges that would be incurred in excess of operating revenues during the development period was also estimated and formed the basis for the witness' opinion as to the amount of the going value.[1] The special master said (p. 636):

"The cost of obtaining the valuable, but intangible asset, which has come to be known as 'going value,' is not, in my opinion, to be confused with 'pioneer losses,' which the courts have held are not to be capitalized. I do not regard Woods' estimate of the amount of time, labor, and money necessary to develop

(1) The exhibit of the witness Woods is set forth in full in 16 Fed. (2d) 615, 633-635. It shows that the evidence there approved is exactly comparable with that of Col. Miller in this case.

> the business as in any way the estimation of pioneer losses. It is a cost that must be met, if the business is to be successfully established. To hold such costs as losses, and deprive a utility of the advantages to be gained from such expenditures, would be manifestly unjust. Such costs have their reflection in going value. That there is no proof in the record that the plaintiff actually expended the amounts estimated by Woods, as an expert, is true. This is immaterial. The issue is present value, not what it cost to acquire it."

In approving the findings of the special master respecting the value of the property, the court said (p. 638):

> "We have examined these various items and the method of arriving at the values as fixed by the master, and the views he expresses and the reasons advanced are satisfactory to us. We have likewise examined the exceptions filed by the plaintiff to these items of valuation for reproduction cost of tangible property, the allowance for working capital, and the going value possessed by the plaintiff in its business. We think the decision of the master as to these items is correct. He has been guided by, and followed, the rule announced in the authoritative decisions of the Supreme Court * * * ."

In *Southwestern Bell Tel. Co. v. City of Ft. Smith*, 294 Fed. 102, the question of going value was the principal point discussed in the opinion on final hearing. In granting a permanent injunction the court reviewed the authorities holding that going value is a proper and necessary element in a rate case as well as in a condemnation case in response to a contention by the city that "going value should not be taken into consideration." The evidence as

to the amount of the going value is then quoted, being based upon,

> "* * * costs incident to establishing the business, such as attaching the subscribers; training the organization necessary for the proper handling of the business; preparing the records, necessary for conducting the business; maintenance and depreciation on the idle plant from the time of completion of various elements of plant until put into service; and taxes and interest on the idle plant, after the exchange opens until all the plant is in service. This estimate of the cost of establishing the business, or making a going concern out of a dead physical plant, does not duplicate any portion of the cost of reproducing the physical property, or any other costs included in the appraisal * * *." (p. 105)

The court held (p. 106):

> "The method followed in the foregoing quotation is not subject to the criticism made by the Supreme Court in the Galveston case. The above method does not undertake to capitalize past losses. It assumes a reconstructed plant without business, and gives the cost of securing business of the character and magnitude the company now has in Ft. Smith."

On appeal the decision of the district court was affirmed by this Court in a memorandum opinion (270 U. S. 627) on the authority of the *Galveston Case*, among others.

In the decision of the Commission it is said in criticism of Col. Miller's method that it is based on the capitalization of past losses, which the cases cited above show to be erroneous, and also that "by altering the assumptions, particularly those as to the rate at which business is

attached, almost any desired result may be obtained." (R. 41) This is not a valid criticism. In the first place Col. Miller testified that he had not measured going value by past losses (R. 413) and in the second place, while the result might be changed by altering the assumptions upon which an expert opinion is based, no basis is shown in the evidence upon which such assumptions may be altered. Col. Miller's qualifications are unquestioned. His knowledge of and experience in the gas business is undisputed. Necessarily his opinion had to be based on certain assumptions. They are explained in his testimony and the reasonableness of the assumptions used by him is there shown. If the Commission had any evidence to show that the assumptions were incorrect, it had an ample opportunity to adduce such testimony, either at its own hearing or before the court below. Not having done so, it cannot question the integrity of the testimony by saying that the result would vary by taking different assumptions, when the record affords no basis for the use of any other assumptions than those used by Col. Miller. As said by this Court, with reference to uncontradicted testimony of operating expenses, in *Northern Pacific R. Co. v. Department of Public Works,* 268 U. S. 39, 43:

> "This evidence was in character persuasive. It was fairly specific, direct and comprehensive. If the facts warranted, the shippers and the public officials might, of course, have shown by evidence of similar character that the carriers' evidence was inherently untrustworthy; or it might have been overcome by more persuasive evidence to the contrary * * *."

So here the Commission had the opportunity to adduce evidence to controvert that of the Company. It failed to

do so. It cannot arbitrarily reject that uncontroverted evidence, which is on a basis approved by the courts and which shows a going value of not less than $9,228,667.

COMMISSIONER DECOTO'S FINDING OF GOING VALUE.

Although the majority of the Commission failed and refused to find or allow any amount for going value, Commissioner Decoto, who participated in the decision of the case and who filed a dissent, found that the evidence showed a going value of not less than 10% of the physical property, or $6,398,675, saying (R. 74):

> "Going value is not measured alone by the cost of attaching new business. It is a present element in every paying business over and above physical value. It is an intangible element that can be determined only by the judgment and opinion of men eminently qualified by long experience in the design, construction and operation of gas properties and thoroughly conversant with the particular business.
>
> "The testimony of Colonel Miller that the going value of the Company's property over and above the value represented by its physical elements was at least $9,228,667, and the testimony of Mr. Luick that such value was at least $10,000,000 stands unchallenged and undisputed and undenied by any testimony anywhere in the record. To adopt in the face of such undisputed testimony, as the majority opinion has done, a going value of $422,866[1] (shown in Table

(1) As shown by the answer and briefs in the court below, the Commission made no allowance whatever for going value, the sum mentioned being merely an amount added to round out the rate base figure. The Commission answer states: "Admit that in fixing said fair value figure, the Commission did not include therein any independent item of value to represent the claimed elements of going value." (R. 91)

No. VII) is an absolute disregard of all testimony and all law. In fixing the going value at 10% of the physical property, I feel that I have been conservative indeed, and probably would have been justified in using $10,000,000."

GOING VALUE NOT TO BE IGNORED EVEN THOUGH SOME PORTION OF COST IS PAID OUT OF OPERATING EXPENSES.

In *Lincoln Gas & E. L. Co. v. Lincoln,* 250 U. S. 256, 267, the Court considered this very question and held:

> "Again we question the propriety of the master's treatment of 'going value,' which he seems to have estimated at less than otherwise he would have placed it, upon the theory that the company's business had been developed at the expense of the public, in the expenditure of past earnings exceeding a fair return upon the capital invested, and this without any finding, or any clear evidence to which our attention has been called, that past earnings were excessive."

Again, in *Board of Public Utility Commissioners v. New York Telephone Co.,* 271 U. S. 23, the Court said:

> "Customers pay for service, not for the property used to render it. Their payments are not contributions to depreciation or other operating expenses or to capital of the company. By paying bills for service they do not acquire any interest, legal or equitable, in the property used for their convenience or in the funds of the company. Property paid for out of money received for service belongs to the company just as does that purchased out of proceeds of its bonds and stock."

In the last case the Court cited in support of the rule *Ames v. Union Pacific Ry. Co.,* 64 Fed. 165, where it was

held that the source of the funds, even if derived from excessive rates, was immaterial in valuation of the property used.

See, also:

People v. Willcox, 210 N. Y. 479, 104 N. E. 911, 912;
Michigan Public Utilities Commission v. Michigan State Tel. Co., 228 Mich. 658; 200 N. W. 749.

Under the decisions of this Court, it is, as a matter of law, immaterial that part of the cost of creating a going value may have been met out of operating expenses. If the value exists it must be taken into account irrespective of the source of the funds with which it was created.

THE VIEWS OF THE COURT BELOW ON GOING VALUE.

As already noted, the majority of the court below merely approved, without discussion, the action of the Commission in allowing nothing for going value. The concurring judge on the other hand, after stating that the failure of the Commission to make any allowance for going value "was directly in the teeth of the decisions of the Supreme Court of the United States," found that this failure of the Commission had not resulted in the confiscation of the Company's property because of certain compensating errors and because "the allowance of a profit on the bond and stock money necessarily results in a return on the going concern value" (R. 139) and "the allowance of a reasonable profit to the common stockholders upon the cost of its bond and preferred stock money is as definite a recognition of some of the elements of going concern value as if in its estimate the Commission had added a

large sum to the fair value for going concern value." (R. 140)

So far as diligent search has revealed, no such theory has been advanced heretofore by either court or Commission. The concurring judge evidently intends to suggest that because a company secures its bond and preferred stock money by the payment of interest and dividends which currently represent less than the percentage fixed for the fair return, the excess of fair return over the cost of the bonds and preferred stock, constitutes a return on the amount of going value. This, we suggest, is contrary not only to law, but to logic as well.

A utility is entitled to earn a fair return on the fair value of its property. It is the utility and not the various classes of investors in its securities which is entitled to that fair return. It is not to be varied dependent on the financial structure of the utility. Here the Commission fixed a value, which admittedly included nothing for going value. It tested the reasonableness of the rates by relating the net return to the value so found, which excluded going value. How then could it be allowing a return on an allowance for going value which it did not intend to, and which it actually did not, include in the base which it used to fix the rates?

Again, what relationship of any character is there between the going value of a utility, which is a fact, susceptible of measurement, and the spread between the utility's cost of senior securities, and the rate of return which will just escape confiscation? Is the going value of a utility which has only common stock outstanding less than one which has 80% bonds outstanding; or is the going value

of a utility which financed when cheap money prevailed in 1928 greater than one which financed in 1931 when money costs were greater? Is the constitutional fair return different as between two exactly comparable properties whose financial structures are different?

The constitutional protection given the utility is the right to earn a return on the fair value of its property. Less than such a return is confiscation. The source of the money is immaterial. "It is obvious that rates of yield on investments in bonds plus brokerage is substantially less than the rate of return required to constitute just compensation for the use of properties in the public service" (*McCardle Case*, supra, p. 419). "It is manifest that just compensation for a utility, requiring efficient public service, skillful and prudent management, as well as use of the plant, and whose rates are subject to public regulation, is more than current interest on mere investment" (*United R. & E. Co. v. West*, 280 U. S. 234, 251). Whether the utility money is borrowed, or supplied by stockholders, or the owner provides it from his inheritance, makes no difference; the owner is entitled to a fair return on his property; he has all the risk, he is entitled to the return. To suggest that because the return to the stockholder on his stock is in excess of the constitutional minimum return on the value of the total property, is no answer to the failure of the Commission to allow or include anything in the rate base for an acknowledged and appraised element of value.

ACCRUED DEPRECIATION.

As the present fair value of the property, and not its original or reproduction cost is protected by the Constitution, the accrued depreciation, if any, must be appraised and deducted from the value new, in order to determine the present fair value.

As previously noted, the Commission in this case did not fix the rates on the basis of a depreciated value. On the ground that "operating results under the so-called fair value theory may best be illustrated by using undepreciated fair value" and that by using operating setups with a 6% sinking fund depreciation annuity "the amount of the accrued depreciation is of theoretical rather than actual importance" (R. 44) the Commission fixed the rates on undepreciated rate bases, using sinking fund depreciation annuities. As will be demonstrated hereafter, this procedure gave very different results than would have been the case had the Commission's own estimates of accrued depreciation and straight line depreciation annuity been used, for had they been used they would have shown that the prescribed rates were confiscatory even on the Commission's deficient valuation.

Much evidence on the issue of accrued depreciation is in the record. The methods employed by the engineers in measuring the depreciation differed, and for that reason their results differed. However, for the purpose of this case, the accrued depreciation as measured by the Commission's own witness, and as found by the Commission may be accepted, although the amount so found exceeds that found by the Company's engineer by a substantial amount.

THE TESTIMONY AND FINDINGS AS TO ACCRUED DEPRECIATION.

Commission engineer Wehe testified that the accrued depreciation was $7,650,000. He stated that this figure had been arrived at as a result of careful physical inspection and appraisal: that he had "made a thorough study of depreciation as found in this property and my conclusions were only arrived at after careful consideration of the facts, based upon physical inspection and study of the Company's operating records" (R. 304) and that the sum of $7,650,000 "properly and correctly represents the condition of these properties when that condition is expressed as a financial estimate in terms of its reproduction cost new." (R. 304) He repeated his testimony to that effect in an affidavit filed in the court below. (R. 466)

Company engineer Luick testified that the accrued depreciation was $3,470,326. (R. 385) This figure was arrived at by an inspection of the physical property, and a careful estimate of the amount of money that would have to be presently expended to restore its condition to as good as new. He employed what is sometimes termed "the cost to restore method."

The Commission found "The amount of the accrued depreciation in the property is greatly in excess of Mr. Luick's figure of $3,470,326. It is not less than $7,650,000. The record clearly shows that this result, which was testified to by Mr. Wehe, was arrived at only after an exceedingly careful and detailed study involving a physical inspection of the property and analysis of Company records." (R. 42) That the Commission actually found the accrued depreciation to be $7,650,000

is shown in its decision by the statement "Subject to deduction for accrued and realized depreciation in a sum of approximately $7,650,000" the fair value of the property for the year 1930 does not exceed $65,500,000, the figure used as the fair value rate base.

While the estimate of Commission engineer Wehe is subject to attack upon the ground that it is too large, and, for that reason, the Company does not acknowledge its accuracy, it will be accepted for the purpose of our further discussion in showing that on the basis of the most unfavorable testimony in the record, the rates fixed are confiscatory.

THE ACTION OF THE COURT BELOW ON DEPRECIATION.

In the court below the majority opinion does not treat of accrued depreciation, except to show that it was not deducted by the Commission. (R. 116) As the majority approved the findings of the Commission as to values we may assume they also approved the finding respecting accrued depreciation.

The concurring opinion, however, undertakes to make a number of adjustments to the depreciation figure as a justification for upholding the action of the Commission in failing to make due allowance for going value. Notwithstanding the testimony showed that the maximum estimate of accrued depreciation was $7,650,000, the concurring judge finally used the balance in the depreciation reserve ($9,350,689) as the measure of accrued depreciation, claiming that was proper because of an alleged factor of obsolescence in respect of the gas manufacturing plant (a point we will discuss later). He reaches this

conclusion upon the ground that "the public having paid the accrued depreciation upon that claim authorized and fixed by the regulating body should not be required to again compensate for what was claimed to be annually accruing depreciation." (R. 160)

The concurring judge reached this conclusion although he admitted that the reserve had been accumulated on a sinking fund method, under which there is charged to operating expense an amount sufficient at compound interest to write off the property at the end of its expected life, and there is credited to the reserve, in addition to the operating charge, interest at the prescribed rate on the balance in the reserve. Where, as is the case with this Company, the value of the property has been continually increasing due to large extensions of the plant and additions greatly exceed retirements, the necessary effect of the sinking fund theory is that a very large part of the reserve is accumulated from the interest paid by the Company itself into the reserve and deducted from net income, and not charged to operating expense. A sinking fund depreciation reserve in the very nature of things can be no measure of accrued depreciation. The very application of the theory under which it is accumulated negatives the possibility of its use for that purpose. It can only by accident approximate the amount of actually accrued depreciation, which is a fact capable of ascertainment and measurement.

Moreover the use of the reserve as a measure of accrued depreciation is inconsistent with the express finding of the Commission in this case that the reserve is in excess of the actually accrued depreciation. In the decision

(R. 57) it is said, " * * * the reserve is substantially in excess of the amount of accrued depreciation. As heretofore pointed out, the annual amounts allowed for depreciation expense have proven somewhat larger than the experience of the Company has indicated was necessary." The Commission substantially reduced the depreciation annuity below the amount allowed in the 1928 rate case. It did this upon the theory that the accruals were excessive; that the estimated lives were too short. (R. 34) How then can it be said that the action of the Commission in reducing the depreciation annuity is sustained by the evidence, and at the same time that the accrued depreciation should be found at an amount greater than found by the Commission because the reserve, found by the Commission to be excessive, is greater than the depreciation found to exist?

In the concurring opinion it is also suggested that if the straight line annuity testified to by Commission engineer Wehe is to be used as a deduction from operating expenses, the accrued depreciation must be deducted on a straight line basis, shown by Mr. Wehe in his testimony as $15,712,463[1]. (R. 164) In making this suggestion the evidence of Commission engineer Wehe is overlooked, as well as the express holdings of this Court. The straight line estimate of accrued depreciation was made by Mr. Wehe as a mere mathematical computation, and represents that percentage of the total undepreciated value, which

(1) This may be compared to the total balance in the sinking fund depreciation reserve of $9,350,689, a substantial part of which came from interest on the reserve, paid into the reserve out of the Company's net earnings, and not charged to operating expense.

the elapsed lives of the items of property bear to their total estimated lives. It was not intended to represent the accrued depreciation, nor was it computed for that purpose. Mr. Wehe testified in respect of the figures as to straight line depreciation,

> "I do not feel that the straight line estimate is a correct basis of estimate. It does not represent the value of the property." (R. 293)

He also said:

> "In my opinion 66 per cent is not the value of that holder to anyone. It represents a mere mathematical relationship." (R. 293)

In *Pacific G. & E. Co. v. San Francisco*, 265 U. S. 403, 406, it was held that an estimate of accrued depreciation based on mathematical formulas was erroneous and that an estimate "by competent experts who examined the structural units, spoke concerning observed conditions, and made estimates therefrom" should be given greater weight. The Court said that "Facts shown by reliable evidence were preferable to averages based upon assumed probabilities."

Again, in *McCardle v. Indianapolis Water Co.*, 272 U. S. 400, 416, this Court considered a "straight-line" estimate of accrued depreciation and said:

> "The deduction was not based on an inspection of the property. It was the result of a 'straight line' calculation based on age and the estimated or assumed useful life of perishable elements,"

and further stated:

> "The testimony of competent valuation engineers who examined the property and made estimates in

respect of its condition is to be preferred to mere calculations based on averages and assumed probabilities. The deduction made in the city's estimate cannot be approved."

SUMMARY.

This Court has thus definitely held that depreciation must be determined by inspection and appraisal, just as the value of the property is determined. It has held that mere calculations, whether on a straight line or on a sinking fund basis afford no foundation for a finding as to the amount of accrued depreciation as against direct evidence of competent valuation engineers who have examined the property and appraised depreciation. While Commission engineer Wehe's estimate is subject to criticism as being too great, still his estimate was made according to his testimony, as a result of inspection of the property, appraisal of its condition and examination of the records of maintenance and operation. The Commission in the decision found that this was so. (R. 43) His estimate of $7,650,000 is the maximum amount appearing in this record which in any respect meets the tests laid down by this Court. His straight line figure, he testified, represents "a mere mathematical relationship" and "does not represent the value of the property." As a matter of law it cannot represent the value of the property. From the same standpoint the amount in the depreciation reserve, admittedly accumulated on a sinking fund basis, in large part out of contributions to the reserve from the net earnings of the Company and not charged to operating expense, does not and as a matter of law cannot, measure

the accrued depreciation. The maximum amount of accrued depreciation shown by any evidence in this record is $7,650,000, Commission engineer Wehe's figure, which is the amount found by the Commission.

OTHER CAPITAL ITEMS.

Throughout the proceeding the Commission manifested a disposition to trim in every possible way the estimates of value of the Company's property, to reduce allowances previously made by it, to resolve every doubt against the Company. It estimated revenues, on a basis which if exactly applied, would have resulted in a confiscatory return throughout the preceding six years. It estimated expenses by eliminating items actually and reasonably expended by the Company and long unquestioned, and by reducing by nearly $100,000 the depreciation annuity previously allowed by it in respect of a much less amount of property, on the same 6% sinking fund basis.

For years the Company had actually received far less than the return which the Commission itself found the Company entitled to. As soon as the Company's earnings gave any indication of approaching the allowed rate of return new proceedings were successively initiated in which on the basis of assumed conditions, ignoring the actualities to which the decision professes so much preference, and by repeated and increasing whittling away of allowances long unquestioned, repeated rate reductions were imposed.

WORKING CAPITAL—MATERIALS AND SUPPLIES.

The Commission allowed $645,000 for working capital and $450,000 for materials and supplies, an aggregate of

$1,095,000. (R. 27) The evidence shows that a proper allowance for working cash capital is not less than $2,333,850 (R. 372-374) and for material and supplies, not less than $612,735. (R. 374) We have used the minimum allowances for these items, made in the Commission's decision for purposes of this discussion, without conceding their propriety. We cannot pass without comment the manner in which these allowances were fixed by the Commission.

In the 1926 rate case the Commission allowed $600,000 for working capital and $1,226,000 for materials and supplies, an aggregate of $1,826,000. (29 C. R. C. 164) In the 1928 rate case it allowed $1,800,000 for these two items, without segregation. (32 C. R. C. 379) In this case the Commission cut the allowance almost $800,000 below that made in 1926, although the investment in the property had increased, as found by the Commission itself, by almost $6,000,000, and although the number of consumers and its business generally had increased, with a consequent need for larger working capital. This does not indicate, as said by the court below, that "The commission was very liberal in its treatment of certain items of property." (R. 112)

1930 ADDITIONS.

The Commission in fixing the rate base included but half the amount of additions to the property made in 1930, apparently on the theory of average investment, although the rates it was prescribing were for application in the year 1931. The entire amount of 1930 additions should

have been included and an adequate allowance made for 1931 additions. The excluded items of 1930 additions alone amount to $767,103. Also, the Commission excluded from operative lands four parcels on which the Company in 1930 was constructing new facilities. It did this despite the evidence that on one of those parcels the building was completed and in operation before the conclusion of the Commission's hearing and that as to the others the work was in progress and that it would be finished during the year 1930 or early in 1931. (R. 329) The excluded items of land total $192,303.

II. Revenues.

REVENUES WERE OVERESTIMATED.

An estimate of the revenue to be anticipated under rates attacked as confiscatory is necessary to permit a judgment as to whether such rates will yield a fair return.

In this instance an estimate of future revenue under the reduced rates is made difficult by the fact that the Company's gross and net revenues vary with weather conditions. On cold, cloudy, windy or rainy days more gas is sold than on warm, sunny or calm days. For this reason the sales and revenues fluctuate widely as between summer and winter, as between years, as between days of the same week.

The existing rates were found to be unreasonable, not because the Company in fact had earned in excess of a fair return under them, but because, in theory, it would have earned in excess of a fair return if the temperature had been as cold as the average of the preceding twenty-two years.

And in estimating the revenues that might be anticipated in the future under the reduced rates prescribed, the Commission did so on the theory that the temperatures during the succeeding years would average the same as the average of the preceding twenty-two years, without giving consideration or weight to the fact that the actual temperatures during the preceding eight years have been higher than the average.

It is admitted that sales fluctuate with weather conditions. But it has been impossible to establish any definite relationship between sales and recorded weather bureau

temperatures. The only temperature record available is that recorded at the United States Weather Bureau in Los Angeles. The bureau is located on the top of an office building in downtown Los Angeles. (R. 508) The city extends[1] over many square miles of territory, extending from the mountains to the seashore, and covering territory where the temperature must of necessity vary widely from that recorded at the weather bureau.

Both the Company and other parties to rate proceedings have attempted in the past to devise a method of predicting future revenues by estimating what they would be if temperatures in the future were to accord with the average of the past. With this in view, elaborate mathematical formulas were devised whereby the actual sales for a period were "normalized," by being either increased or decreased depending on whether the temperature during that period was greater or less than the average for a preceding period, the average temperatures used being those recorded at the Los Angeles Weather Bureau. Much is made by the Commission of the fact that the Company officials participated in the attempt to perfect such a formula, and made estimates based upon its use.

The unfortunate fact is that the formula proved unreliable and practically useless. The "adjusted sales" for a period, made before the event, never did coincide with the adjusted sales made after the period.

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(1) The Area of the municipality of Los Angeles increased as follows:

Year	Square Miles
1906	62
1910	101
1915	288
1920	364
1925	415

The chief fault of the "adjustment" made by the Commission is that it selects as normal the average temperature for the preceding twenty-two years. This is not the only fault, for it ignores fluctuations due to economic conditions, and fluctuations due to climatic conditions other than temperature. (R. 396) It would seem logical that the longer the base used, the better the average. But during that "longer base" economic and living conditions have changed and the recorded temperatures show that during the years preceding December 31, 1930, when the case was submitted

1. The average temperature for the past ten years was higher than the twenty-two-year average.

2. The average for the past eight years was higher than the ten-year average.

3. The average for the past five years was higher than the eight-year average.

4. Not one of the preceding five years had been as cold as the twenty-two-year average. (R. 508)

Assistant Chief Engineer Guillou, of the Commission, testified

> "If rates had been made on the temperature adjusted basis during the last six years, and had worked out exactly according to theory, the Company would have earned less than a fair return throughout that period. The same would be true for 1930 inasmuch as the first five months show actual sales less than temperature adjusted." (R. 246)

The Commission used the "adjusted" revenues of the Company for the three-year period 1928-30, as a basis for

testing the reasonableness of the existing rates and for fixing future rates. These "adjusted revenues" were $1,388,000 higher than the actual revenues of the Company for this period. (Compare Table I, R. 24 and Table II, R. 26)

To use the language of the Commission itself (employed in another connection) (R. 39) "results such as heretofore indicated * * * necessarily draw into question the soundness of the methods, theories and assumptions leading up to them."

The Company became convinced that estimating future revenues on the basis used by the Commission was justified neither by the facts nor by experience and that a much more fair and just method would be to use the actual sales during the twelve months' period ending October 31, 1930 (the last figures then available), during which period the temperatures approximated closely the average temperatures during the preceding five-year period. (R. 509)

The different estimates of revenues under the rates prescribed are as follows:

Commission estimate of future annual revenue used in its decision	$15,003,000[1]
Commission Engineer Guillou's estimate (R. 480)	14,856,000

(1) To produce this revenue the Company would have to sell 1,000,000 m.c.f., more gas than it had ever sold before in its history. A difference of 1,000,000 m.c.f. represents more than $700,000 in gross revenue, and more than $500,000 in net revenue.

Company estimate (R. 445)	14,352,450
Actual 1930 revenue (less 9% reduction)	14,624,710[1]

The actual revenue for 1930 while higher than the Company's estimate, was more than $200,000 less than the lowest Commission estimate and $650,000 less than the estimate actually used by the Commission in finding the existing rates to be unreasonably high and prescribing the reduced rates.

The unreliability of the estimates made by the Commission clearly appears in this record. Commission engineer Brown, at one of the first hearings, made an estimate of revenues for the last three months of 1929 (having actual figures for the first nine months of that year available) and for the years 1930 to 1932 inclusive (Exhibit 2, R. 224a). These estimates were made on the temperature adjusted basis and constituted the so-called prima facie case made by the Commission on its order instituting the investigation, on the basis of which the Company was required to justify its existing rates. The estimates so made by Mr. Brown are shown by this record to have been in excess of the actual revenues received in the amount of $500,165 for the three months of 1929 (R. 328), in the amount of $1,184,691 for the year 1930 (as shown in appendix to Commission's brief in the lower court), and in the amount of $2,684,401 for the year 1931. (R. 199) This progressive discrepancy

(1) From Commission's brief in the court below, p. 101, where Commission computation showed that this would yield but 6.73% on the Commission's rate base, using the Commission's figures for operating expenses, etc.

between the estimates and the actual experience of the Company of itself is sufficient to indicate that the question of confiscation should not be decided on the basis of estimates in the face of actual experience.

WHAT THE LOWER COURT DID.

The majority opinion approved the methods employed by the Commission, adding "We may note that the winter of 1931-32 in the City of Los Angeles, as it has thus far progressed at the end of January, has been one of the coldest in many years" (R. 117), and the concurring opinion says, "So far as the year 1931 is concerned, we take judicial notice of the fact that the temperatures have been the lowest for many years and much lower than the average for 5 years." (R. 171)

While it is true that some unusually cold weather was experienced during that winter (snow falling in Los Angeles for the first time in 50 years), which doubtless influenced the members of the court below in making these statements, it is not true that the average for the year 1931 was below the five-year average contended for by the Company. The records of the Weather Bureau show that the average for the five years, 1926-1930, was 64.4 degrees, the average for the year 1931 was 66.5 degrees.

The year 1931 was 2.1 degrees *above* the 5-year average.[1] More than one or two cold days are necessary to produce

(1) From Los Angeles Weather Bureau records. For the months of January, February, March, April, November and December, during which 65% of sales are made (R. 25), the 5-year average temperature was 60.3 degrees, the 1931 temperature was 61.1 degrees, .8 degrees higher than the 5-year average.

the revenues required to support the operations of the Company.

If the court below was seeking to look into conditions subsequent to those appearing in the record before it, the entire case should have been reopened for further testimony. While certain conditions may properly be a matter of judicial notice the effect of those conditions is dependent on many other matters which can only be developed by testimony taken in the ordinary way. As said by this Court in *Galveston Electric Co. v. Galveston,* 258 U. S. 388, 402,

> "But we cannot know to what extent the important changes occurring have affected either gross revenues or the net return * * *".

As shown by the affidavit of Mr. Houghton (R. 199) the actual revenues of the Company for the year 1931 were but $15,635,252 under the existing rates, collected under protection of the interlocutory injunction, as against the estimate of $16,415,000 for 1930, made by the Commission in its decision on a normal temperature basis. Giving effect to the 9% reduction, the actual revenues of the Company during 1931 would be $14,240,694, as compared with the Commission estimate in its decision of $15,003,000, and Commission engineer Guillou's estimate of $14,856,000.

The case was tried upon the record. It should have been disposed of upon the record. If the court below thought a change in conditions warranted reopening the case that should have been done rather than taking judicial notice of but a single phase of changed conditions without

inquiry into the effect of that or other changes that had occurred. The court below might with equal propriety have taken judicial notice of the loss of business that has been experienced generally by all lines of endeavor, and by this Company as well.

It is submitted that the Company's showing of the actual revenue for the 12 months ending October 31, 1930, the last twelve months' period available (during which period the temperatures approximated the average for the preceding five year period, R. 509) should have been used for measuring the reasonableness of existing rates and as a basis for estimating future rates, rather than revenues "adjusted" by the Commission so as to represent what it termed "normal temperatures" based on the average temperatures during the preceding twenty-two years, which formula, had it been applied, would have resulted in the Company failing to earn a fair return in each and every of the preceding six years.

A similar situation was passed upon by the Supreme Court of Wisconsin in *Wisconsin-Minnesota L. & P. Co. v. Railroad Commission,* 183 Wis. 104; 197 N. W. 363. In that case an action was brought to set aside an order of the Railroad Commission reducing rates. The court found the Commission's order invalid because the existing rates were found unreasonable, not on actual experience but upon estimate, saying:

> "The Commission arrived at its conclusion by substituting for the experience of the Company estimates as to future revenues and future operating costs. In

> setting aside the existing rate the Commission cannot substitute for the experience of the Company its estimates as to future revenues and operating costs. The net earnings of the Company for the year ending October 31, 1921, was a completed operation. Estimates as to revenues could not change the fact as it existed. If it be assumed that the Commission, where there is evidence to show that an existing rate is unlawful, is justified in basing the substituted rate upon estimates, we cannot see how estimates can be used to establish the unlawfulness or unreasonableness of an existing rate. There is no attempt to sustain the order of the Commission in the case on any other basis than that of estimates. There is no claim that the management is wilfully extravagant or that plaintiff improperly administers its property."

Under the Public Utilities Act of California the Commission is authorized to prescribe new rates only after finding the existing rates to be unreasonable. There is here no valid finding that the existing rates are unreasonable and in the absence of such a finding the Commission is without statutory authority to prescribe new rates, hence its action is arbitrary, without due process of law and should be set aside. (*Wichita R. & L. Co. v. Public Util. Comm.*, 260 U. S. 48.)

EFFECT OF THE DEPRESSION.

The proceeding by the Commission was initiated prior to the October, 1929, collapse. It was submitted in July, 1930, before the effect of the depression was fully realized, or before it was even imagined, particularly on the Pa-

cific Coast, that it would be long continued. An examination of the Commission's decision shows that it gave no consideration to lessened sales due to economic conditions, and the lower court took no judicial notice of the fact that all public utility sales have declined severely. This case is being tried on a record, and we will confine our discussion to it, except where it becomes necessary to overcome the exercise of supposed judicial notice which has led to a conclusion contrary to the fact. It is obvious that estimates of sales and earnings for 1931, 1932, and subsequent years, which gave no consideration to losses due to the depression, were, to say the least, optimistic.

The decision itself shows (R. 33) that "the business depression has had an effect upon sales". At one of the later hearings the Company's witness, Mr. Masser, testified (R. 358) that the actual revenues received while the hearings were under way were less than those estimated by the Company itself at an earlier hearing.

The dissenting opinion of Commissioner Decoto (R. 74), based upon actual operating revenues received by the Company after submission of the case and up to September 1, 1930, shows that "a study of the actual operating revenue for the year 1930, shows it to be under that estimated by the company," which he found "due to the economic pressure and economies made necessary by the drastic change in the business of the community". The dissenting Commissioner prophetically continued that the depression "in my opinion will continue through the year 1931, and probably well into 1932".

His comment in closing his discussion of this phase of the case well expresses what we conceive to be the proper rule. He said (R. 74):

> "To fix rates upon the former normal trend of business, is to close our eyes to what is everywhere about us, and to forget that we are faced with actualities, and that theories should yield to actual facts."

ALTERNATIVE RATES.

In the Commission's decision certain alternative rates were conditionally permitted. These rates were slightly higher than the rates prescribed. The very fact that alternative rates are offered by the Commission is in itself an admission that the estimate of earnings used by the Commission is probably excessive, as the actual experience of the past three, five, eight and ten years shows it to be.

Moreover, it is no answer to the Company's claim of confiscation to say that another basis was offered under which the degree of confiscation may not be so great. The alternative rates are allowed only as temporary rates, and only upon condition that all earnings in excess of $4,650,000 per year be impounded, subject to the order of the Commission—in effect "recaptured." As we have shown the reduction of earnings to this amount would be confiscatory. The Commission admits that it has no authority to impose the conditions upon which the alternative rates are temporarily permitted.[1] The order of

(1) "* * * the Commission does not assume the power to direct the establishment of a reserve * * *." (R. 56.)

the Commission is limited to the rates which we have attacked and that is the only matter before the court.

As the authority of the Commission under the statute governing its activities is solely to prescribe reasonable maximum rates (Public Utilities Act, §32a), the permission to charge the higher alternative rates itself constitutes an admission that the lower rates prescribed are less than reasonable maximum rates, and, therefore, beyond the statutory power of the Commission.

III. Operating Expenses.

EXPENSES WERE UNDERESTIMATED.

A prediction of future operating expenses is required in determining whether the reduced rates prescribed are in fact confiscatory.

The Commission in its decision employed for this purpose the estimated expenses of the Company for the years 1928 to 1930, after first making certain "adjustments." (Table V, R. 47) These adjustments consisted in the elimination or reduction of certain actual operating expenses of the Company, the principal one of which was a reduction of the depreciation annuity, actually used by the Company and fixed by the Commission in earlier rate cases.[1]

DEPRECIATION ANNUITY.

As has been previously noted, the Commission fixed the rates upon the basis of the undepreciated values found by it, using a 6% sinking fund depreciation annuity as a charge to operating expense. It stated that "operating results under the so-called fair value theory may best be

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(1) 6% sinking fund annuities fixed by Commission on this case as compared with amounts fixed in earlier cases.

	Commission's Historical Cost	Sinking Fund Annuity
1926 Case	$54,699,052	$1,078,000
1928 Case	57,682,659	1,092,000
This Case	60,704,000	990,000

Based on percent of total property, the allowance in this case is more than $160,000 per annum less than in the earlier cases.

The "adjustment" of depreciation for the year 1928 made in Table V of the decision (R. 47) reduces the annuity to $943,000, an amount $149,000 less than the Commission fixed in its decision prescribing rates effective in that year (32 C. R. C. 379).

illustrated by using undepreciated fair value," and that "should a depreciated rate base (fair value) be used the depreciation annuity would have to be computed only for the expected life of the property and would be more than an annuity computed on the basis of age plus expected life. In brief, while the base upon which the return would be figured would be less, the depreciation annuity would be greater." The Commission concluded that under its set up and with the method of depreciation accounting customarily used "the amount of the accrued depreciation is of theoretical rather than actual importance." (R. 44)

There are a number of different ways by which depreciation annuity may be computed. The ones most generally used are the straight line method and the sinking fund method. Under the straight line method the annuity is fixed at an amount which will return to the owner each year that year's proportion of the value of the property used in service. This method conforms to the rule laid down by this Court in *Knoxville v. Knoxville Water Co.*, 212 U. S. 1. This method of estimating depreciation annuity was recognized by the Commission's engineer (R. 297) as the one that should be used with a depreciated rate base. The Commission, however, has consistently declined to allow depreciation annuity on a straight line basis and has always fixed the annuity for this Company upon a 6% sinking fund basis. The annuity chargeable to operating expenses on this theory is much less than the amount chargeable on the straight line method,[1] since the amount

(1) The difference is illustrated by the Commission engineer's estimate of depreciation annuity on the fair value base. He estimated the sinking fund annuity at $1,072,000 (R. 47) and the straight line annuity at $2,306,606. (R. 298)

is so calculated as to return the original cost of the property less estimated salvage at the end of the expected life through the accumulation of the annuity payments and compound interest thereon at 6% per annum. Where, as here, the depreciation reserve is invested in the property the interest on the reserve is annually credited thereto and charged against net income. The interest is never charged to operating expense. Under this method an undepreciated rate base is used. The federal courts have held that such a method is improper for use in testing the confiscatory character of rates. In *Cumberland Tel. & Tel. Co. v. Louisville*, 187 Fed. 637, 655, the court held that

> "Of course our estimate could not be based upon the proposition that the per centum set apart to cover depreciation would be deposited in bank or loaned out from year to year so as to accumulate and be on hand at the end of 14 years, and to be then used to construct an entirely new plant, and so on from period to period."

In presenting the case before the Commission, having in mind the practice of the Commission to fix rates on the basis of an undepreciated rate base and a sinking fund depreciation annuity, evidence was presented as to the proper amount of such annuity. The Company witness estimated such annuity at $1,222,465. (R. 357) The Commission's witness estimated it at $990,000 on the historical rate base and $1,072,000 on the fair value base, the amounts used in the decision. (R. 47) Even on the basis of historical cost (undepreciated) with sinking fund annuity the rates are in fact confiscatory. However, in view of the well-established rule that confiscation is to be determined by

using a depreciated rate base and straight line annuity we will confine our discussion to the evidence showing the effect of the rates prescribed from that standpoint.

In addition, there was shown by a Company witness a judgment annuity suitable for use with the so-called "cost to restore" method of estimating accrued depreciation, this annuity being in substance a modified sinking fund annuity. (R. 165, 390) Witnesses for the Commission presented in great detail estimates of the total and future lives of the depreciable property, and detailed estimates of the appropriate straight line annuity applicable to the various valuation estimates submitted. (Ex. 56, R. 279-287) In the District Court, the Company also presented estimates of the proper amount of straight line depreciation annuity. (R. 446, 450, 505, 514) There were therefore before both the Commission and the court estimates of the proper depreciation annuity to be used in testing the rates, but the Commission and court both ignored them.

THE EVIDENCE AS TO THE PROPER DEPRECIATION ANNUITY.

When the Commission used an undepreciated rate base, and a sinking fund depreciation annuity instead of a depreciated rate base and a straight line depreciation annuity, it thereby adopted a formula which on the surface indicated a rate of return, greatly in excess of the rate of return which is shown by the use of the Commission's own depreciated base, and the Commission engineer's own estimate of straight line annuity. In fact, if the latter basis had been used by the Commission,

the result would be to show the rates confiscatory on the Commission's own deficient rate base, with its overestimate of revenues and its underestimate of expenses.

The Commission also sought to excuse its failure to test the results by using a straight line annuity, with a depreciated base, by stating, "The only figure in the record for depreciation annuity expense which could be used with a depreciated base or fair value is that of Mr. Luick of $1,300,000, and it is very doubtful if the use of this figure would indicate a fair or representative result." (R. 44)

The statement that the Luick figure is the only depreciation annuity in the record which could be used with a depreciated base, is simply not true. The statement that "it is very doubtful if the use of" the Luick figure of $1,300,000 would indicate a fair or representative result, is quite correct, although understated, for it is quite clear from the record that Mr. Luick's figure was not a straight line annuity, but was in substance a modified sinking fund annuity suitable for use only in connection with his "cost to restore" method of measuring accrued depreciation. His testimony, quoted in the concurring opinion, (R. 165) clearly shows that this is so.

The concurring judge had no difficulty in finding in the record the estimate of the Commission engineers as to the proper straight line annuity. He states (R. 163), with reference to the testimony of Commission engineer Wehe,

> "Upon the same basis (straight line) he finds the depreciation annuity $2,331,813 * * *. This method

> of estimating the depreciation is in accord with the decision of the Supreme Court in United Railways v. West, 280 U. S. 354,"

followed by an extensive quotation from the *West* case.

The record contains the following evidence with respect to straight line depreciation annuities:

Commission engineer Wehe (straight line)	$2,331,813[1]
"	2,306,606[2]
"	2,687,512[3]
Company engineer Luick (straight line)	2,344,744[4]
"	2,830,487[5]

These are the depreciation annuities which it was testified were proper to be used in connection with a depreciated rate base. There was no conflict of testimony as to the fact that the straight line annuity would have to be used with a depreciated rate base, and the minimum annuity shown on that basis is that of Commission engineer Wehe amounting to $2,306,606. In connection with his testimony on the subject, Commission engineer Wehe said (R. 297), "I have also worked out and shown in connection with the reproduction cost estimates in Exhibit

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(1) On a valuation arrived at by using 6% overheads 4-year average prices. (R. 283.)

(2) On a valuation arrived at by using 6% overheads and June 30, 1930, spot prices. (This is the basis of value used for the Commission fair value rate base.) (R. 298.)

(3) On a valuation arrived at by using 22.32% overheads and four-year average prices. (R. 287.) This is the valuation which Commission engineer Dufour testified was the cost of reproduction.

(4) Based on the Commission's fair value and using Commission engineer Wehe's lives. (R. 505.)

(5) Based on Company's reproduction value and Commission engineer Wehe's lives. (R. 514.)

56 the straight line depreciation annuities, which are the annuities which would be used if a depreciated reproduction value were used as a rate base"; and again (R. 289), "The lives used in this study are the result, and the sole result, of the development of lives as shown by field inspection and an examination of past performance of this Company and this Company alone. Life tables have not been used in any sense of the word."

While the Company contends that Commission engineer Wehe's estimates of depreciation annuity both straight line and sinking fund are too low, because of his use of longer lives than are justified by experience,[1] there can be no question but that the Commission's witness testified to a minimum straight line annuity suitable for use with a depreciated rate base—$2,306,606, this based on a value obtained by using 6% overheads and spot prices. If this annuity is used for the purpose of testing the rates prescribed, certainly no one but the Company may complain.

THE LAW APPLIED TO THE FACTS SHOWN OF RECORD.

As was agreed by all parties before the Commission and as stated by the concurring judge, a straight line depreciation annuity must be used in connection with a

(1) The Commission engineers and the Commission used longer lives than had ever been used by the Commission before in the case of this Company. Commission engineer Wehe testified that he had increased the lives of mains from 25 years to 28 years, although the lives used by the Commission for the Pacific Gas and Electric Company are 25 years (R. 298); that he had increased the lives on consumers' meters and regulators from 25 to 30 years, although he did not know of any other utility that used lives as long as 30 years. (R. 299.)

depreciated rate base. The Commission employed neither a straight line annuity nor a depreciated rate base.

As it is the present fair value of the utility's property which is protected by the Constitution, it is necessary in a confiscation case to determine fair value, and that involves of necessity, the ascertainment of the amount of accrued depreciation, and its deduction from the value of the property new. As has been pointed out the amount of this accrued depreciation was appraised by the Commission engineers at $7,650,000, and this sum was found by the Commission to be the accrued depreciation. This is, therefore, the maximum estimate of accrued depreciation, and by deducting it from whatever sum may be found to represent the fair value of the property new, a minimum present fair value may be determined. This minimum fair value is the one upon which future depreciation annuity must be based.

That depreciation annuity must be allowed in rate cases and must be computed on the straight line method is thoroughly established by the decided cases. In *Knoxville v. Knoxville Water Co.*, 212 U. S. 1, 13, it was said that the utility "is entitled to see that from earnings the value of the property invested is kept unimpaired, so that at the end of any given term of years the original investment remains as it was at the beginning." In *United R. & E. Co. v. West*, 280 U. S. 234, 253, the Court states:

> "One of the items of expense to be ascertained and deducted is the amount necessary to restore property worn out or impaired, so as continuously

> to maintain it as nearly as practicable at the same level of efficiency for the public service. The amount set aside periodically for this purpose is the so-called depreciation allowance. Manifestly this allowance cannot be limited by the original cost, because, if values have advanced, the allowance is not sufficient to maintain the level of efficiency. The utility 'is entitled to see that from earnings the value of the property invested is kept unimpaired, so that at the end of any given term of years the original investment remains as it was at the beginning.' Knoxville v. Knoxville Water Co., 212 U. S. 1, 13, 14, 53 L. Ed. 371, 380, 29 Sup. Ct. Rep. 148."

and quotes with approval from *Michigan P. U. Comm. v. Michigan State Tel. Co.,* 228 Mich. 658, 200 N. W. 749, as follows:

> "* * * the purpose of permitting a depreciation charge is to compensate the utility for property consumed in service, and the duty of the commission, guided by experience in rate making, is to spread this charge fairly over the years of the life of the property."

These results can be attained only by allowing in each year that proportion of the total value of the property, less estimated salvage which that year bears to the remaining years of its service life. To allow only an amount which if compounded at a certain rate would at the expiration of the expected life yield the cost of retirement (the sinking fund annuity) would require not only the use of an undepreciated rate base, instead of a present fair value rate base, but would also require the owner to speculate

on the possibility of obtaining a safe investment at that rate for the entire life of the property, including investment of the accruing interest. Such a sinking fund annuity does not return to the owner the yearly proportion of the inevitable loss of value from depreciation: this can only be accomplished by the use of a straight line annuity.

The record contains a minimum estimate of the straight line depreciation annuity—the $2,306,606 testified to by Commission engineer Wehe, applicable to the valuation figure which was the basis of the Commission's "fair value" base. It is computed on deficient values and too long lives. A straight line annuity based on present fair value and using future lives would greatly exceed Commission engineer Wehe's estimate, but that minimum estimate is sufficiently high, as will be pointed out hereafter, to demonstrate that the rates are confiscatory.

THE ACTION OF THE LOWER COURT.

In the majority opinion the court below says

> "It is not demonstrated by any evidence that the allowance made by the Commission as for depreciation annuity for the future would not, in its amount, be equivalent to the replacement outlay at going costs." (R. 117)

This refers to the use by the Commission of a sinking fund annuity ($990,000 on the historical basis, and $1,072,000 on the fair value basis), reduced below its allowances in earlier cases. No mention was made of the proper annuity to be applied to a present fair value rate base, in order to test the confiscatory character of the

rates, although the majority opinion recognizes the correct rule of law when it says, "It is to be noted that under accepted rules as between straight line and sinking fund methods, the sinking fund base is undepreciated, while the straight line base is a depreciated base." (R. 116)

The concurring judge observes that the depreciation annuity should be computed on the straight line basis, and applied to a depreciated rate base, and that this course was not followed by the Commission. He concludes however:

> "In view of this wide variation between the estimates of the Commission's engineers on one hand and of the Company's engineers on the other, the allowance by the Commission of $1,072,000, is evidently not far amiss * * *". (R. 169)

It is here that a fundamental error is made, which we submit, indicates that if the concurring judge had distinguished between a sinking fund depreciation annuity and a straight line annuity he would have concluded that the rates are confiscatory. The concurring judge took the Commission's *sinking fund annuity* and by relating it to a *depreciated rate base,* concluded that the new rates would not be confiscatory, for there would then be sufficient leeway (as much as $7,605,017) "to take care of going concern value" and any other omissions of the Commission in its findings of value.

The process of reasoning employed by the concurring judge in arriving at his conclusion that the Commission

allowance of $1,072,000 "is evidently not far amiss," is too long to relate here, but it suffices to say that his conclusion is not based upon any of the direct expert testimony of the engineers who inspected the physical property and appraised the accrued depreciation and estimated proper annuities for the future, but upon somewhat intricate deductions which involve the use of the Company's depreciation reserve, the use of engineer Luick's estimate of $1,300,000 as being a straight line figure (when the evidence indicates that it is not a straight line figure, and is only to be used in connection with his "cost to restore method" which the court and Commission refused to follow), and speculation as to the effect on the annuity of eliminating the gas plant from the rate base (although neither he nor the Commission held that it should be eliminated).[1]

Although he recognized that a straight line annuity should be used, and found that Commission engineer Wehe had estimated that such an annuity would be $2,331,813, he did not use this figure in reaching his conclusion, stating that if this figure was used "it would seem to follow that we should also accept his estimate of accrued depreciation of $15,712,463 and vice versa." (R. 164) As heretofore pointed out, Commission engineer Wehe did not

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(1) There appears to be an obvious inconsistency in the holding that the Commission is correct in reducing the sinking fund annuity formerly allowed by it (which it did solely because the reserve of $9,350,689 was in its opinion excessive), and yet finding that the accrued depreciation was to be measured by the amount in the reserve.

estimate the accrued depreciation at $15,712,463,[1] but appraised it at $7,650,000. He testified that the use of the larger figure would give a result which would "not represent the value of the property" and that "It represents a mere mathematical relationship" (R. 293) The use of this figure to represent accrued depreciation would not only be contrary to all the evidence, but contrary to the decisions of this Court which hold that accrued depreciation measured by the testimony of competent valuation engineers who examined the property is to be preferred to mere calculations based on averages and assumed probabilities (*McCardle v. Indianapolis Water Co.*, 272 U. S. 400, 416. *Pacific G. & E. Co. v. San Francisco*, 265 U. S. 403).

A straight line annuity of $1,072,000, as used by the concurring judge, would indicate an average future life of the depreciable property of more than 47 years, using the Commission's estimate of value. That is to say, it would take the Company more than 47 years to secure the return to it of the present value of its depreciable property if the annual charge was the amount used by the concurring judge. This is in the face of a record which shows that the Commission engineer computed an average expected *total* life of approximately 26 years, and that the total lives, including the past, as well as the future, as estimated by the Commission, ranged between

(1) No party to the proceeding contended that this figure represented accrued depreciation. The Commission's answer claims that the depreciated value is $57,850,000. (R. 88.) This is arrived at by deducting Commission engineer Wehe's estimate of $7,650,000 from its fair value figure of $65,500,000. The entire balance in the Company's depreciation reserve is but $9,350,689, accumulated on a sinking fund basis under the prior orders of the Commission.

ten years and forty years (with the exception of two classes aggregating $1,600,000 which were estimated at forty-five years). When it is realized that the property has been in existence for a number of years, an estimate of a 47-year future life is obviously erroneous. The annuity which is used by the concurring judge is less than 2% of the depreciable property of a company engaged in the distribution of natural gas. It is not only not sustained by any evidence of record, but is obviously grossly inadequate.

It is submitted that there is no evidence of record which justifies the concurring judge's use of $1,072,000 as a straight line depreciation annuity, the *lowest* straight line estimate being that of Commission engineer Wehe of $2,303,606, which is $1,231,606 greater than the figure used by the concurring judge in finding that the rates were not confiscatory.

OTHER ERRORS IN RESPECT OF DEPRECIATION.

We have pointed out that the sinking fund annuity allowed by the Commission was grossly inadequate because computed on a deficient base and that, in testing the confiscatory character of the rates prescribed, depreciation must be computed on the straight line basis,[1] which if done here would establish the confiscatory character of the rates prescribed, apart from any other error of valuation or estimate made by the Commission. A proper

(1) The Commission stated in its decision (R. 35) that if historical overheads of 11.25% were used in determining historical cost, the rate base as fixed by the Commission would be increased by $2,750,000 and the annual depreciation expense by $50,000 (on a sinking fund basis).

depreciation annuity would be even greater than the amounts taken from the record which we have used to demonstrate these facts.

As already stated the Commission, in this case, pursued its policy of fixing rates on an undepreciated rate base, using a sinking fund depreciation annuity, but in doing so it substantially reduced the sinking fund annuity previously allowed in operating expense in rate cases affecting this Company. The historical costs found by the Commission and the sinking fund depreciation annuities allowed are as follows:

	Historical Cost	Depreciation Annuity
1926 Case	$54,699,052	$1,078,000
1928 Case	57,682,659	1,092,000
This Case	60,704,000	990,000

Despite an increase of $6,000,000 in the historical cost of the property as found by the Commission itself the annuity on that basis was reduced $102,000 per annum. This was done, as heretofore pointed out, by increasing estimated lives far beyond those previously used, and beyond those used in respect of any similar property in the state of California. The Commission engineers testified that the proper sinking fund depreciation annuity on their reproduction valuation with 22.32% overheads would be $1,222,023. (Ex. 56, R. 287) This is $150,000 in excess of the sinking fund annuity used by the Commission.

The Commission computed the annuity on a 6% sinking fund basis. It had begun the use of that rate and basis in the 1917 rate case and continued to do so throughout the various cases prescribing rates for the Company. When

the 6% sinking fund basis was started the rate of return allowed was 8% and it continued at substantially that amount until 1928 when it was reduced to 7½%. In this case the return on the fair value basis was estimated by the Commission at but 7%. Under such circumstances the use of a 6% interest rate for the depreciation annuity is manifestly improper. Conceding the propriety of using a sinking fund annuity at all, the annuity rate must necessarily be substantially less than the rate of return allowed.

The theory of the sinking fund method of allowing for depreciation is that the annuity allowed shall be invested at compound interest, at a determined rate, and thereby accumulate over the life of the property an amount sufficient to meet the cost of retirement. If the annuity rate used is the same or close to the rate of return a deficiency will almost inevitably result. Some lag must be experienced before the depreciation fund can be profitably invested, even in the utility's own property. The permitted rate of return is not always earned. The Commission shows in its decision that this Company failed to earn the permitted return in practically every year from 1917 to 1926, inclusive. (R. 24)

A sinking fund annuity is much like the purchase of an annuity from an insurance company. No insurance company would undertake such a contract on a 6% basis. Assured investment is not available at any such rate. Where used at all, the annuity rate should be at a much lower rate, a differential of at least 2% under the rate of return being the minimum. This was recognized by the Commission in an early case (*Antioch v. Pacific G. & E. Co.*, 5 C. R. C. 19, 53), but this principle has been departed

from since the Commission embarked on the "tendency to cut the rate of return" which Commissioner Decoto, in his dissenting opinion, characterized as "confiscation and not regulation".

The sinking fund annuity basis is not available as a basis for determining the confiscatory character of the rates. These comments are included, however, for the purpose of showing that the Commission here reduced its own former estimates and computed the sinking fund annuity on a 6% basis while allowing but a 7% return. On a 5% basis the depreciation annuity chargeable to operating expense would be much higher, and the net return would be correspondingly reduced.

OTHER OPERATING EXPENSES.

The Commission also discarded other items of operating expense actually and reasonably incurred by the Company in its attempt to find justification for the reduction in rates ordered by it. A payment of $86,000 a year to Pacific Lighting Corporation for managerial services was rejected in toto although the evidence showed that services received thereunder were worth far more than that amount and that by reason of the services so obtained substantial economies had been effected and official personnel reduced. (R. 421)

IV. Rate of Return.

THE RETURN IS INADEQUATE.

The rate making process employed by the Commission is clear. It found the existing rates to be unreasonably high, and prescribed the new rates as reasonable, not because the existing rates were intrinsically unreasonable, and the new rates were reasonable, but because, as stated in the decision, the earning of the Company under the existing rates "represents an earning level higher than heretofore deemed reasonable in respect to this or to other comparable utilities," (R. 35) and "a careful consideration of the present earning position of the Company, as indicated by Tables II and IV, and of all other pertinent factors, * * * leads to the conclusion that rates should be fixed which in the future will lower the Company's domestic and commercial gas revenue by approximately 9 per cent." (R. 46) It should be remembered that the "earning level" found to be too high was not the level of actual earnings, but the earnings that it is estimated would have been received had the temperatures been much lower than they actually were, and the gross and net revenues much higher than they were in fact. This is not only a process of rate fixing based on limiting the Company's profits, rather than preventing unreasonable rates, but it goes beyond that; it fixes rates by limiting profits which the Company has not in fact realized, and by limiting future profits that it may never realize.

This process of rate making necessarily involves a determination of what constitutes a fair rate of return, for the issue of whether the rates are reasonable or unreason-

able is wholly dependent on whether the return is greater or less than a fair rate. Here the Commission did the extraordinary thing of determining that the fair rate of return should be 7.7% if the Company was to accept the diminished historical cost as representing fair value, but that it should only be 7% if the Company insisted on any consideration being given to reproduction costs (even though going value was to be entirely ignored). It is difficult to see how a fair return can be 7.7% and 7% at one and the same time, particularly when it is fixed as an amount "Somewhat in excess of the cost of money invested in the property". That cost does not vary with the rate base used. If 7.7% is a fair return (not in excess of the constitutional minimum) the allowance of but 7% on the fair value found by the Commission, demonstrates, without more, the confiscatory character of the rates.

In *Ashland Water Co. v. Railroad Commission*, 7 Fed. (2d) 924, a statutory court considered a somewhat similar situation. It was there argued that if the rate base fixed were found inadequate and must be raised, the rate of return could be lowered and the final result sustained. Having found that a return was fixed as just and reasonable, the court, at page 936, said:

> "How unjust it would be when, in this court, the rate base found being either overthrown or seriously impugned, to turn the plaintiff out with the observation that, 'where the product is fixed, the *multiplicand* will vary necessarily as the multiplier varies;' that 7 per cent. on $620,000 and 6 per cent. on $750,000 are nearly the same!"

The court further held:

> "Plainly, the suggestion of thus overthrowing the commission's finding of a 7 per cent. *rate* is put forward as a remedy for its error with respect to the *base*, and, if indulged, a mere paradox is erected, whereby the court would add its own arbitrary and capricious action in one respect to that of the commission in the other."[1]

THE LAW.

In testing the confiscatory character of rates prescribed by state authority

> "* * * the fundamental principle to be observed is that the property of a public utility, although devoted to the public service and impressed with a public interest, is still private property; and neither the corpus of that property nor the use thereof constitutionally can be taken for a compulsory price which falls below the measure of just compensation. One is confiscation no less than the other."
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> *United R. & E. Co. v. West*, 280 U. S. 234, 249.

This Court has also, in clear and unequivocal language, repeatedly declared how this "just compensation" shall be determined. In *Bluefield W. W. & I. Co. v. Public Service Comm.*, 262 U. S. 679, 692, it held:

> "A public utility is entitled to such rates as will permit it to earn a return on the value of the property which it employs for the convenience of the public, equal to that generally being made at the same time

(1) In the above quotations the italics indicated are those of the court.

and in the same general part of the country on investments in other business undertakings which are attended by corresponding risks and uncertainties."

Again, in *United R. & E. Co. v. West*, supra, decided January 6, 1930, it reiterated the rule, saying (280 U. S. at 251, 252):

"What will constitute a fair return in a given case is not capable of exact mathematical demonstration. It is a matter more or less of an approximation about which conclusions may differ. The Court in the discharge of its constitutional duty on the issue of confiscation must determine the amount to the best of its ability in the exercise of a fair, enlightened and independent judgment as to both law and facts. • • • It is manifest that just compensation for a utility, requiring for efficient public service skillful and prudent management as well as use of the plant, and whose rates are subject to public regulation, is more than current interest on mere investment. Sound business management requires that after paying all expenses of operation, setting aside the necessary sums for depreciation, payment of interest and reasonable dividends, there should still remain something to be passed to the surplus account, and a rate of return which does not admit of that being done is not sufficient to assure confidence in the financial soundness of the utility to maintain its credit and enable it to raise money necessary for the proper discharge of its public duties. In this view of the matter, a return of 6.26 per cent is clearly inadequate. In the light of recent decisions of this court and other federal decisions it is not certain that rates securing a return of 7½ per cent or even 8 per cent on the value of the property would not be necessary to avoid confiscation."

See, also,

Smith v. Illinois Bell Telephone Co., 282 U. S. 133.

The law requires that to escape confiscation, the return be at least equal to the return enjoyed by investments in enterprises of like risks and uncertainties in the same locality at the time of the inquiry. The standard is not the cost of money to the Company, nor is it the return being enjoyed by other utilities regulated by this Commission according to its traditional rate making formula which it is attempting to enforce here, as the Commission evidently thought.

Moreover, it is the property of the Company which is affected by the rates prescribed, and not the property of the individual bondholder, or preferred or common stockholder. What arrangements the investors in particular securities may see fit to make among themselves regarding the division of the return can have no bearing upon the return to which the Company is entitled. The rate of interest paid on borrowed funds may vary materially, depending upon the ratio of the loan to the security and the personal credit of the borrower. In the case of this Company its credit is materially enhanced, and the cost of borrowed money reduced, because the Company is also engaged in the electric business, 40% of its entire property being so employed. (R. 24) To measure the return by the actual cost of borrowed money necessarily results in penalizing the solvent, conservatively financed, utility since its cost of money will be less than one of precarious financial standing with a top-heavy bond structure. The Commission itself, in *Re San Jose Water Works*, 25 C. R. C. 507,

516, held that: "To penalize a public utility for efficiency and economy in management and operation could result only in placing a premium upon extravagance." Yet that is the test which the Commission here seeks to apply.

WHAT THE COMMISSION DID.

Despite the settled law on the subject, the Commission made no attempt to determine what rate of return would be reasonable, although the evidence conclusively showed that a fair return would be at least 8% per annum. Instead, it proceeded, along the lines of its traditional rate making policy, to fix rates intended to yield "a return somewhat in excess of the cost of the money invested in the property." In Part III of the decision, purporting to deal with "Reasonable return and rates proper to be established" the Commission says (R. 50):

> "The present actual annual cost to the Company for its bond and preferred stock money is 6.17 per cent. However, just as the assumption that the Company's property was constructed at prices now current increases the actual cost figure, so a similar assumption that the Company was financed on the basis of current money cost or value would reduce the figure of 6.17 per cent to 5.64[1] per cent. If the Company is to derive the advantage due to economic changes which raise the value of its property over its actual cost, it should at the same time in fairness expect to suffer any detriment due to economic changes which may lessen the cost or earning ability of money."

(1) By admitted typographical error in the decision this appears as 5.46 per cent. (R. 51)

It is evident from these expressions and from the return which the Commission estimates will accrue under the rates imposed, that the Commission adhered faithfully to this theory. Moreover, it did not even find the cost of money to the Company in accord with the testimony, but fixed rates which, as Commissioner Decoto says in the dissenting opinion, are "less than the cost of money". (R. 75)

The answer of the Commission (R. 88) admits that the Commission acted in the manner indicated. It is there alleged:

> "* * * that the return upon capital invested in Los Angeles and vicinity in business undertakings other than public utilities cannot be ascertained with any degree of accuracy; that the return on capital invested in such business undertakings varies greatly; that no comparison can be made with any degree of accuracy between the risks and uncertainties inhering in such business undertakings and those of plaintiff's business; that the average annual return upon capital invested in public utility enterprises in Los Angeles and vicinity and elsewhere within the state of California is much less than 8%[1]; that the present actual

(1) There is no support in the record for the allegation that "the average annual return upon capital invested in public utility enterprises in Los Angeles and vicinity and elsewhere within the State of California is much less than 8%." The rate of return stated by the Commission in its various decisions and the actual return being enjoyed by public utilities in California are two entirely different things. Mr. Fankhauser, the Commission's financial expert, testified that the statistics he showed in his exhibit would not permit any comparison of the return received by the Company with that received by other utilities. (R. 241). Not only is there no testimony in the record on the subject, and hence no support for the Commission's allegation, but we deny the truth of the allegation.

> annual cost to plaintiff for its bond and preferred stock money is 6.17 per cent; and that a fair return to plaintiff upon the fair value of its properties is not now in excess of 7% per annum."

It will be noted that in these quotations, and throughout its decision, the Commission confined its consideration to the cost of bond and preferred stock money, and entirely ignored the cost of common stock money.

To allege that the return upon other business undertakings cannot be determined, is to ignore the uncontradicted testimony of eminent bankers whose testimony is in this record. To assert that the risks of such enterprises cannot be compared with those of the Company's business, is likewise to fly in the face of the uncontradicted testimony in the record of witnesses eminently qualified by experience and training to testify on the subject. To claim that the fair return on this Company's property must be measured by the return enjoyed by other utilities in California is to argue in a vicious circle, since the Commission admits that it has for years regulated all utilities in the way here attacked and has attempted to limit their earnings to "somewhat in excess of the cost of money", regardless of what may be a lawful fair return.

In this connection it should be noted that as contrasted with its allowance of but 7% return in this case the rates of return allowed by the Commission to the Company (but not actually received) in earlier rate cases were as follows:

Rate Case	Return Allowed
1917	8.00%
1918	7.87%
1921	8.14%
1926	7.80%
1928	"In excess of" 7.5%

To determine the cost of money by reference to the present effective rate on bond and preferred stock money presently outstanding, ignores the fact that the cost of such money includes also the costs incident to the issuance and redemption of prior issues refunded by the issues now outstanding, and also ignores the cost of common stock money, as to which nothing is stated. Moreover, such an allegation relates to a matter which furnishes no guide to the measurement of a fair return, since this Court, in *McCardle v. Indianapolis Water Co.*, 272 U. S. 400, 419, has repudiated such a test, saying:

> "It is obvious that rates of yield on investments in bonds, plus brokerage, is substantially less than the rate of return required to constitute just compensation for the use of properties in the public service. Bonds rarely constitute the source of all the money required to finance public utilities. And investors insist on higher yields on stock than current rates of interest on bonds. Obviously the cost of money to finance the whole enterprise is not measured by interest rates, plus brokerage on bonds floated for only a part of the investment."

We submit that these errors of law alone require that the order be set aside. The Commission likewise erred in respect of the conclusions to be drawn from the evidence.

ERRORS OF FACT IN RESPECT OF PROPER RATE OF RETURN.

The evidence introduced in the proceeding before the Commission, showed the rate of return enjoyed by comparable investments in Los Angeles, and it showed also the cost of money to the Company, not merely the current cost of bond and preferred stock money, but the total actual cost of all money, including common stock money. All of this evidence was ignored by the Commission.

The Company witnesses were:

Victor H. Rossetti, Executive Vice President of the Farmers and Merchants National Bank of Los Angeles, who has been a banker for 38 years and for 19 years has been a banker in Los Angeles, and who testified as to the return enjoyed on comparable investments.

Paul A. Sinsheimer, an investment banker of many years experience, who was financial expert of the Commission during the period 1912-1917, and who made a special study of the return enjoyed upon investments in Los Angeles.

W. E. Houghton, Vice-President and Treasurer of the Company, who has been with the Company 31 years, and who testified as to the actual cost of its bond and preferred stock money.

The only other witness who testified on the subject was W. C. Fankhauser, present financial expert of the Commission.

Current Rate of Return in Los Angeles.

Mr. Rossetti testified at length as to the return being presently enjoyed on comparable investments in Los Angeles. (R. 429) He recited the risks and uncertainties

attendant upon an investment in this Company, and also its protections. He cited instances of financing in Los Angeles where the effective interest rates on loans secured by real estate were as high as 9%, and averaging 8% on the highest grade of real estate loans. (R. 430) He testified that the effective rate on moneys borrowed from building and loan companies, and secured by real estate was in excess of 9%. (R. 430) He testified that it was necessary for a corporation to earn a reasonable margin in excess of interest and dividend requirements in order to preserve its credit standing. (R. 430) Mr. Rossetti testified that the return being enjoyed on comparable investments in Los Angeles was not less than 8%, and that the trend was upward rather than down (R. 430); that in view of the present economic conditions, the minimum return on comparable investments in Los Angeles was at least 8½%. (R. 430)

He also testified as to the differential that exists between the return enjoyed upon investments in Los Angeles and comparable investments in other parts of the country, including northern California. (R. 451) Mr. Rossetti testified that he has been familiar with business and financial conditions in Los Angeles for more than 19 years; that "during all of said period Los Angeles and vicinity has been in a development stage and has grown rapidly in population and wealth: that said growth will, in affiant's opinion, continue during the next decade. The demand for investment funds in Los Angeles have always been in excess of the supply available in that territory and on account of the competition for funds the rates of interest and the rates of return on investments have always exceeded the rates of interest and rates of return on

funds invested in similar enterprises in other parts of the United States and in northern California" (R. 451) that "the Federal Reserve Bank's rediscount rate for the same class of paper is 2½ per cent in New York and 4 per cent in Los Angeles." (R. 431) This is due in part to the remoteness from the center of available capital and in part to the newer development in this locality. He states that the same differential existed with respect to investment funds. (R. 451)

The one dollar gas rate attempted to be enforced by the State of New York was attacked in the Federal Courts by several gas companies operating in the City of New York and it was there uniformly held that a sufficient and proper return was not less than 8 per cent upon fair value of the property used and useful in the public service.[1]

When courts sustain an 8 per cent return to gas companies located in the City of New York, it would seem self-evident that a rate of return even higher than 8 per cent should be allowed companies operating in Southern California and engaged in the distribution of natural gas.

Attention is directed to the fact that in each of those cases an 8 per cent return is allowed upon the present fair value of the property including a substantial allowance for going value. It is also to be noted that each of those companies was engaged in supplying gas in

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(1) See *Brooklyn Borough Gas Co. v. Prendergast*, 16 Fed. (2d) 615; *Brooklyn Union Gas Co. v. Prendergast*, 7 Fed. (2d) 628; *Consolidated Gas Co. v. Prendergast*, 6 Fed. (2d) 243; *Kings County L. Co. v. Prendergast*, 7 Fed. (2d) 192; *New York and Richmond Gas Co. v. Prendergast*, 10 Fed. (2d) 167; *Queens Borough G. & E. Co. v. Prendergast*, 31 Fed. (2d) 339. Several of these cases were appealed to this court and affirmed in *Ottinger v. Consolidated Gas Co.*, 272 U. S. 576, and companion cases.

the highly developed and densely populated City of New York. They obviously enjoy a more stable business than does this Company. They are not subject to the demands for additional investment, regardless of the financial conditions existing, which confront this Company, located in a relatively new, less densely populated, and rapidly expanding community. The necessity of a greater return to this Company than found reasonable for the companies operating in the City of New York is obvious.

Mr. Sinsheimer testified at length. He had made a special study on the subject which was introduced in evidence as Exhibit 39, showing in considerable detail the actual cost of the money (without the margin of earnings necessary to secure money at that cost) now invested in the Company's property, which amounts to 6.994%. (R. 435) With a reasonable margin of safety Mr. Sinsheimer found such cost to be 7.981%. (R. 437) Such cost cannot be determined, as was done by the Commission witness, by considering only the current effective interest rate on securities presently outstanding, but there must also be considered, the cost of all securities issued in the past and refunded by issues now outstanding, as was done by Mr. Sinsheimer. Mr. Sinsheimer testified that the actual historical cost of money cannot be determined otherwise, and throughout his experience "both in and out of the Commission" (R. 435) the study has always been made in that way.

Mr. Sinsheimer determined the cost of common stock money to the Company by comparing it with the cost of common stock to Pacific Gas & Electric Company and Southern California Edison Company. (R. 432-434) This was necessary because none of the common stock of the

Company had been sold to the public.[1] He found the cost, thus arrived at, to be 8.5%. (R. 435) Allowing a minimum margin of safety over the actual cost of the money invested in order to obtain money at the cheapest basis, Mr. Sinsheimer testified that a return of at least 8% is required. (R. 437)

The average return on investments in other enterprises in Los Angeles and vicinity with corresponding risks and uncertainties, Mr. Sinsheimer found to be in excess of 8%. (R. 437) He testified that more than $350,000,000 is loaned out in California by building and loan associations on first mortgage real estate security. The interest rate charged averages 8.45% and commissions and fees which must be added would increase this rate. Over $100,000,000 of such loans are in Los Angeles and vicinity, at a rate substantially in excess of 8%. (R. 436)

The legal rate of interest in California is 7%, with permission to collect as high as 12% under special contracts. (Cal. Stats. 1919, p. lxxxvii)

Hazards of the Company's Business.

The hazards of the Company's business, which were considered by Mr. Rossetti and Mr. Sinsheimer in their testimony, include (R. 430):

1. Temporary and permanent interruption of the supply of natural gas.

2. Competition with other fuel.

3. Possibility of municipal competition.

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(1) Since 1909 all of the common stock of the Company has been owned by Pacific Lighting Corporation.

4. Extreme variations in sales due to fluctuations in temperature.

5. Increased cost trends of natural and artificial gas.

6. Lag between necessity for and effectiveness of increase in selling rates.

7. Necessity of providing new capital when needed irrespective of condition of money market.

8. Industrial shift.

9. General obsolescence.

10. Earthquake, fire and similar hazards.

The witnesses also stated that they had taken into consideration that the Company was a utility, protected against the entrance of a new privately owned competitor. (R. 430)

The majority opinion of the court below (R. 110) states that the Company "is confronted with no real competition". This statement is directly opposed to the evidence in this record. The Commission's Assistant Chief Engineer, Mr. Guillou, testified (R. 246) that in his opinion "sales of electricity for domestic purposes are just beginning," and that "this will have some effect on the gas business". Mr. Masser, the Company's Executive Engineer, testified (R. 339) that there is already existing intensive competition with electricity in Los Angeles, where the city operates its own electric plant and is "carrying on extensive advertising and solicitation for electric cooking and to a lesser degree water heating". He further pointed out that the completion of the Boulder Dam project will force upon the market a great supply

of electrical energy, which will induce further activity in promoting the sale thereof for domestic heating and cooking purposes. It is hardly to be expected that this intensified competition from the distributors of electricity will be held off until the Boulder Dam power is actually on hand for distribution.

An additional hazard not mentioned in the testimony but appearing from the record herein is that caused by the Commission's policy and practice in fixing rates. After many years when the return received was less than that found reasonable by the Commission itself, on a totally inadequate rate base, the Company is confronted with a disposition on the part of the Commission to reject proper and necessary items of operating expense, to reduce further already inadequate allowances for depreciation, and to cut down the rate of return, all at a time when a severe derangement of economic conditions was in its inception, and without consideration of or regard for the inevitable effect upon the Company's business and revenues resulting therefrom. As said by Commissioner Decoto (R. 68), "During the last two years this commission has shown a tendency to cut the rate of return upon an historical rate base from between 8% and 8½% to 7%, which reduced the rate of return upon a fair value basis to 6.12½% to 6.3%. This is confiscation and not regulation."

The record shows that the Company over the 10-year period, 1916-1926, failed to earn the return found reasonable by the Commission, the deficiency being over $4,000,000. If during periods when the Company is able

to earn a fair return, the return is rigidly held down to the minimum, it is obvious that over a period of years the Company will not average a fair return. This method of regulation constitutes another hazard.

The practice of the Commission as here manifested to reduce rates, not because actual earnings have been excessive, but upon the basis of "adjustments", and by consideration of what the earnings might have been had the weather been colder than it was, had more gas been sold than was sold and had actual expenses incurred in operation not been paid is also an adverse factor affecting the business of the Company. When this speculative theory of rate making is applied by using a formula for "normal" temperatures which the Commission's own engineers say would, if exactly applied, have resulted in less than a reasonable return throughout the last six years, the business in which the Company is engaged is for that reason alone a hazardous one.

Rate of Return Should Be At Least 8%.

Having in mind the foregoing considerations, both as to the differential in return for investments in this vicinity as compared with other localities, as well as the specific risks and uncertainties surrounding the Company's business, both Mr. Rossetti and Mr. Sinsheimer state that the present average return on capital employed in this locality in other business undertakings, attended by corresponding risks and uncertainties to those of the Company, is in excess of 8%. Mr. Rossetti states that such minimum return is at least 8½% (R. 451) and Mr. Sinsheimer, 8.2%

(R. 453) The qualifications of these witnesses to form and express opinions on this subject are unchallenged.

The testimony of Mr. Rossetti and Mr. Sinsheimer as to the rate of return is not controverted by any testimony in the record. There is not one word of testimony, either in the record before the Commission or in the affidavits on file in the court below, to the effect that the return on comparable investments in Los Angeles is less than 8%.

Cost of Money to the Company Greater Than Return Allowed.

The Commission's finding that the cost of bond and preferred stock money is but 6.17% (R. 50) is erroneous in fact, and is much less than the cost shown of record. The cost of bond money properly measured is 6.40%, that of preferred stock money 6.76% and of common stock money at least 8.5%. (Ex. 37, R. 423) The weighted average cost of money with a minimum surplus required to support such costs is 7.981% (R. 437), an amount in excess of the return under the rates imposed as estimated by the Commission. As stated by the dissenting Commissioner (R. 68), "This is confiscation and not regulation."

The Commission's only witness, Mr. Fankhauser, did not testify in respect to the current rate of return enjoyed by investments in other enterprises of corresponding risks and uncertainties, and his affidavit in the court below is silent on that point. He testified only as to the current cost of the bonds and preferred stock of the Company now outstanding, completely ignoring the costs of securities which may have been replaced by the issues now outstanding. He assumed to show the cost of the Company's common stock

money by comparison of the current dividend paid on the stock of the Pacific Gas & Electric Company, and of Southern California Edison Company in relation to their market prices (R. 234), completely ignoring stock dividends and stock purchase rights which those companies have periodically issued in conformity with an announced practice. (R. 438) Nowhere did he testify as to the actual return upon the properties of those companies. Nowhere did he testify as to the rate of return enjoyed upon comparable investments. As a result his testimony is so lacking in probative value that we may properly say the showing of the Company's witnesses stands uncontradicted on this record.

Moreover, Mr. Fankhauser himself recognized 6.9% as a reasonable cost of money in his testimony before the Commission. (R. 239) That was the rate which he computed and supplied the engineering department for use in computing interest during construction in their reproduction cost estimate. It is insufficient for that purpose but it is a recognition that the 7% return allowed is insufficient in view of this court's holding that the return must also permit "something to be passed to the surplus account." (*West case*, supra)

The operations of a company such as this are not conducted on a day to day basis. Borrowings at comparatively high interest rates in earlier years are still reflected in the cost of money to the Company despite their refunding into issues bearing a lower interest charge. If this were not so, it would be not only no advantage but a positive detriment to the Company, to refund such securities into

new securities bearing a lower interest rate. If the refunding cost must be charged to the surplus and thereafter rates fixed solely in relation to the current cost of the new securities the Company loses the cost of refunding and gains nothing. In such a refunding operation substantial premiums must be paid to retire the earlier issue. Obviously the sum so paid is wholly out of proportion to the benefits attained during the year in which the refunding operation is conducted. The cost of such refunding must be taken into account as part of the cost of money, as it obviously affects the average annual cost of the money represented by both the original and the refunding issue. This was what was done by the Company's witnesses. Mr. Sinsheimer testified that this is the only way in which the cost of money can be ascertained and that throughout his experience, both in the Commission and out of the Commission, he had never heard of it being done in any other way. (R. 435)

So determined, the actual cost of the money invested in the Company's property is shown (R. 423, 437) to be:

Bond Money	6.40%
Preferred Stock Money	6.76%
Common Stock Money	8.50%
Weighted Average	7.12%
With Minimum Margin of Safety	7.981%

As shown by the experience of this Company the expected rate of return is often not earned. While past deficiencies are not a basis for the fixing of reasonable rates for the future the hazard of not earning a return and the fact that over a period of years it frequently will not be

earned require that in fixing a reasonable rate of return some margin of safety, beyond the bare cost of money must be included.

No company which paid out all its earnings as interest and dividends could continue to finance its operations, and it was shown by the testimony that only by retaining a portion of the earnings, as a reserve, could the above costs be maintained. The cost of this reserve is as much a cost of the outstanding securities as is the interest and dividends paid thereon. This cost was entirely ignored by the Commission.

The effect of confining the inquiry to the current effective rate on securities presently outstanding is well illustrated by the history of certain financing initiated by the Company in 1921, when it was necessary for the Company to borrow money for necessary additions to the property on bonds bearing 7% interest coupons. $3,500,000 principal amount of these bonds were issued in 1921 for which $3,247,320 was received by the Company. They were called for redemption in 1927 and a premium of $157,500 over the principal was paid to effect redemption of the 7% bonds. They were retired out of the proceeds of an issue of 5% bonds now outstanding, issued at 95, less certain expenses paid in connection with the issue. (R. 425) The same money remains invested in the property of the Company. The actual cost of that money is not the current effective rates on the bonds now out (5.44%) but includes also the cost incurred in connection with the prior bonds refunded thereby. It amounts to 7.95% to date, although the Commission's formula would allow but 5.44% therefor. (R. 237)

The Company's method of computing cost of money does not include issues secured by property since replaced by other property. The Company's study (Ex. 37) is confined to bonds outstanding and to issues refunded at costs that must be averaged through the refunding issues now outstanding. Nothing is included in respect of any bonds that have not been refunded by securities presently outstanding. (R. 429)

The current effective rate on comparatively small issues of seasoned, senior securities is valueless in determining either the historical or the replacement cost of all the capital required by the Company. The uncontradicted testimony in the record is that the current replacement cost of the money required to reproduce the property, would greatly exceed the historical cost of the money now invested in the property. The Commission's comments respecting the rate at which such securities have been issued merely becloud the issues.

Depreciation Reserve Improperly Included.

Determining the cost of money by including depreciation reserves at 6%, as was done by the Commission, is fundamentally erroneous. The depreciation reserve is the property of the Company and represents a proportionate yearly repayment of the value of the property which is, or will be, consumed in the public service. As a practical matter it is largely reinvested in additions and betterments to the property, but nevertheless it is the property of the Company which lawfully might be retained by it and upon which, if reinvested in the utility, a reasonable rate of return must be permitted. The impropriety of computing a sinking fund depreciation reserve on a 6%

basis has elsewhere been pointed out. The Company is an insurer of the earning of 6%. If the earning is not that great the Company, and not the consumers must pocket the loss. No insurance company would guarantee or insure on a 6% basis; the return allowed would be much nearer 2%.

If, instead of investing this reserve in additional property the Company invested it elsewhere, it would receive thereon the current rate of return and to deprive it of such return, or to assume that the cost of the funds so obtained is not equal to the current prevailing rate of return in the community, is to disregard the facts as well as the law.

If correction be made in the Commission's calculation of the cost of money, only to the extent of adjusting the reserves to the proper basis, the weighted average cost is shown to be 7.03%. This correction leaves untouched the Commission's insufficient estimate of the cost of bond and preferred stock money, takes no account of the recognized fact that all of the earnings cannot be paid out in interest and dividends, but that some must be carried to reserves, and ignores the increase that should be made in the investment to allow for going value and for proper overheads. The figures of the Commission corrected only by eliminating the depreciation reserve as borrowed money are

Bond proceeds	$44,341,480x5.96%	=$2,643,090.30
Preferred stock proceeds	17,330,317x6.72%	= 1,164,597.34
Common stock proceeds	20,000,000x8.50%	= 1,700,000.00
Reserves	15,695,277x8.50%	= 1,334,098.54
	$97,367,074x7.03%	=$6,841,786.18

resulting in a cost of money (7.03%) actually greater than the amount the Commission seeks to justify as a fair return.

EARNING ON PAR VALUE OF COMMON STOCK IS NO TEST OF REASONABLE RETURN.

The Commission in its decision, and in arguing the case in the court below, referred to the earnings and dividends upon the par value of the Company's common stock as if such earnings or dividends constituted evidence relating to the reasonableness of the rates prescribed by the order. The Commission's own witness, Mr. Fankhauser, testified that there is "no relation between the earnings on the common stock and the fair rate of return." (R. 240)

Early in the history of the Commission it was contended by a utility that its value should be determined solely with reference to its outstanding securities. This is essentially the same as testing the reasonableness of this Company's return by the dividend on its common stock. In reference to the contention so advanced the Commission properly said (*Re Nevada-California-Oregon Ry. Fares,* 1 C. R. C. 223, 225):

> "This is not at all persuasive and to ask the Commission to adopt such a basis of valuation is a reflection upon the intelligence of its members."

Again, in *Re Los Angeles Water Service Co.,* 28 C. R. C. 403, 408, the Commission said:

> "Rates are based on the reasonable value of the property to be used in rendering service and not on the outstanding stocks and bonds,"

and in *Re San Jose Railroads*, 20 C. R. C. 907, 914, the Commission held that

> "* * * applicant's so-called financial requirements are not a proper basis for computing rates".

This Court is concerned only with the present fair value of the Company's property and whether the rates prescribed will yield a fair return thereon. What the par value of any class of stock may be; whether it has any par value; whether there is any stock at all, and if there be, whether it is conservative in amount or watered, are considerations foreign to the controversy before the Court. In the days before *Smyth v. Ames* was decided the utilities sometimes tried to justify rates based on the face value of their outstanding securities but, never since that decision was announced, has anyone been heard to urge that earnings on the par value of common stock had anything to do with the reasonableness of rates. From the statements in the Commission's decision it is reasonable to assume that the conclusion of the Commission that the rates it prescribed as reasonable on November 13, 1928, were unreasonable on November 24, 1930, was influenced by the present earnings on the par value of the common stock. If so, another explanation is presented for its invalid order.

Fortunately the record supplies a clear answer to the innuendo of high earnings. It shows that:

> 1. During the period set forth in the Commission's tables the Commission itself on three different occasions found it necessary to increase the Company's rates because of inadequate earnings; (R. 21)

2. Since 1913 the Company has never earned an 8% return on the true cost of its property, except in one year, and the accumulated deficiency is over $8,000,000; (R. 399)

3. The Commission's own decision (R. 24) shows that the average return during the period 1913-1929 was but 7.65% on its own finding of historical cost, which is many million dollars below the actual cost of the property and that up to January 1, 1927, the deficiency below the return allowed, on that rate base, exceeded $4,000,000 (supra, p. 57).

4. The Commission itself shows that had the prescribed rates been effective in 1930 the net revenue would have been but 6.73% on its own deficient "fair value". (Commission's Brief in court below, p. 101)

It is unique that when a utility invokes the constitutional protection against confiscation it should be met with the argument that, irrespective of the confiscatory character of the rates, it has paid dividends on the par value of its common stock. Apparently, from such an argument, the Commission thinks a utility which has been conservatively financed, and which has a small nominal amount of stock outstanding should be penalized and treated less favorably than a utility with a huge nominal issue of stock, regardless of the values behind either stock.

COMPARISON WITH RETURN ON PAR VALUE OF OTHER UTILITY STOCKS IMPROPER.

The Commission makes a comparison of the amount earned upon the par value of the Company's common stock

and that earned on the par value of the common stock of Pacific Gas & Electric Co. and Southern California Edison Co. (R. 234) The comparison is confined to the relative earnings on the par value and without giving any effect to, or even mentioning the practice of the other companies of issuing rights to subscribe to common stock at less than the market value, as a result of which the actual return on those stocks is more than double that shown in the Commission's exhibit. (R. 432, 433) It is obvious that such a comparison is of no evidentiary value. Under the law the return is to be measured in relation to the value of the property and not in relation to the nominal or par value of the securities issued by the utility.

The evident purpose of the comparison is to convey the impression that this Company is enjoying a higher return than are the other companies mentioned. The fact is to the contrary. Instead of earning a higher return on its common stock having regard to the property value behind it (using the Commission's own erroneous basis of valuation), this Company, under the existing rates is actually earning less than one of the companies mentioned, and substantially the same as the other.[1] Under the lower rates prescribed by the Commission, which will reduce the net earnings nearly $1,100,000 per annum, or 20%, this Company will earn far less on the property behind the common stock than either of the companies mentioned. When it is remembered that those utilities are being regulated upon the cost of property theory, and upon the cost

(1) From showing of reports of these utilities contained in the Commission's Annual Report for the year ended June 30, 1930.

of money theory, the comparative showing becomes even more persuasive as a showing of confiscation of the property of this Company.

THE FINDINGS OF THE COURT BELOW.

The majority opinion after reciting that the Company produced two witnesses who testified that, risks and uncertainties of the business considered, the Company should earn more than 8 per cent concluded, "The Commission was correct in saying that it was not to be controlled by this testimony in the face of facts before it. It cannot be said that, assuming the reasonableness of the base amount used, the rates prescribed would not yield a fair return." (R. 111)

The concurring opinion states that the contention of the Company that the fair return should be 8 per cent cannot be sustained; that the testimony of financiers that 8 per cent represents the rate of return for "similar" enterprises cannot be accepted for there are no other similar enterprises except other gas and electric companies operating under the jurisdiction of the Railroad Commission whose rates are fixed in the same way, and concludes "We have a unique situation in California for all such companies are under the jurisdiction of one rate-making body, the Railroad Commission. As these corporations have been successfully operated and financed for nearly 20 years under its supervision and have extended their operations and increased their capital in conformity with the rulings of the state Railroad Commission, it would seem to follow that the income allowed by the Railroad

Commission as return upon the money invested would be a better test of what constitutes a reasonable return than the off-hand testimony of financiers concerning the general cost of money for similar enterprises." (R. 177)

Aside from the fact that the record discloses that the testimony of the Company's witnesses was anything but the "off-hand testimony of financiers," but on the contrary was the result of careful and detailed study and analysis by men of recognized standing, one of whom had been for years the bond expert of the Commission, the finding is in effect a statement that what the Commission does allow as a rate of return conclusively establishes the fair rate of return. In other words that the finding of the Commission is beyond the court's power of review.

We submit that the proper rule is that "The court in the discharge of its constitutional duty on the issue of confiscation must determine the amount (fair return) to the best of its ability in the exercise of a fair enlightened and 'independent judgment as to both law and facts'." (*United R. & E. Co. v. West*, 280 U. S. 234, 251.) The holding of the concurring opinion that the fair return may be measured by the amount allowed other utilities, regulated on the same erroneous theories as here applied, is much like the argument once advanced that value may be determined from a utility's earnings.

SUMMARY.

We have shown that a return of 7% upon the value of the Company's property is inadequate to meet the test laid down by this Court. The facts before this Court

show without contradiction that a return of at least 8% upon the value of the property is required to afford the Company a return comparable to that enjoyed upon investments in other commercial and business enterprises in Los Angeles and vicinity which are attended with risks and uncertainties comparable to those of the Company's business. The record also shows conclusively that a return of 8% is required to cover the cost of money to this Company, such actual cost, with the margin necessary to support that cost being in excess of 7.9%. No fact or circumstance is disclosed by this record which in any way mitigates from the full effect of this evidence.

The great variation in load between summer and winter, the fluctuations and uncertainties due to temperature variations, the hazards of the natural gas supply, and the uncertainties due to economic conditions, as well as the differential in the return on investment in Los Angeles as compared with other localities, all point to the necessity of a minimum return of 8%.

The Commission admittedly adhered to its "cost of money" formula, a formula which, under the facts disclosed by this record, results in confiscation. It did not even correctly apply that formula, but based its finding on an assumed cost of bond and preferred stock money averaging 6.17% and erroneously treated depreciation reserves as costing but 6%, wholly ignoring the cost of common stock money and the actual property interest of common stockholders. It disregarded the evidence that the actual historical cost of the money presently invested in the Company's business, with the minimum mar-

gin of safety necessary to support such cost, is not less than 7.981%. (R. 437)

The return allowed is in fact less than the cost of money. It is less than the current return upon comparable investments in the same locality. In addition to the confiscation resulting from insufficient values the order is also confiscatory by at least $655,000 per year, the difference between the return intended to be allowed by the Commission (7%) and the minimum return warranted by the evidence (8%) applied to the Commission's own erroneous finding of value of the property used ($65,500,000), and on the Commission's own erroneous estimate of revenue and expenses. Apart then, from any other error of the Commission, the rates prescribed are, for this reason, confiscatory and the injunction should be made permanent.

V. The Gas Manufacturing Plant.

THE PLANT IS USED AND USEFUL.

As the court below commented on the used and useful character of the Company's gas manufacturing plant, it seems desirable that the matter be discussed in some detail.

In the proceeding before the Commission no Commission witness or engineer suggested that the plant was not used and useful property, and the Commission engineers, without exception, included the plant in their inventory and appraisements of used and useful property. The City of Los Angeles did, however, claim that the plant was not necessary at the present time, in view of the asserted adequate supply of natural gas, admitting that if not included in used and useful property, it should be amortized at the expense of the consumers.[1]

The Commission in its decision included the plant as used and useful property and, after remarking that the money invested in the plant was invested prudently and in good faith, finds:

> "While the evidence adduced by the City in respect of these plants presents a serious question as to whether all of the investment they represent should be continued in the rate base, it is not established with sufficient definiteness that the elimination of the whole or a part of the investment would be fair to the company or to the interest of the consumers." (R. 33)

(1) The record shows that if the plant were amortized over a ten year period, the actual cost to the consumers during that period would be greater than if the plant were to remain in the rate base. (R. 515)

In connection with its comment on fair value, the Commission states:

> "The evidence convincingly and satisfactorily establishes the existence of a natural gas supply adequate for years to come. This presents a serious question as to how the artificial gas plants of the Company should be treated. Are they all necessary as a standby or would a part of them be adequate for this purpose? Under the basis of fixing rates heretofore followed by the Commission, which essentially is to provide a fair return on money prudently invested, if any part of these were eliminated as operative property it would follow that provision would be made for the amortization of the money invested in them. In Part I some consideration was given to the matter of these plants and the conclusion reached that the evidence under all of the circumstances did not justify their retirement and amortization at this time. A different situation is presented when the Company demands a return on the present fair value of its property, for the somewhat doubtful need of all of these plants does have an appreciable adverse bearing upon their value, as included in the rate base figures in Tables IV and V". (R. 49).

From this it will be seen that the Commission concluded that the evidence did not "establish with sufficient definiteness that the elimination of the whole or a part of the investment would be fair to the Company or in the interest of the consumers", and that the evidence "under all the circumstances did not justify their retirement and amortization at this time."

No additional evidence on the subject was presented to the court below. The Commission did not argue there that the plant should be eliminated, and the City of Los Angeles, to use the language of the concurring judge, "only mildly complains thereof" and took the position that the matter had been concluded by the action of the Commission saying in its brief, "The Commission refused to eliminate this item from the rate base, which we admit is a matter which rests in the sound discretion of the Commission."

In consequence, the Company concluded that the issue had been eliminated, and but scant attention was devoted to the matter in the presentation in the court below.

The court below gave consideration to the matter by saying that, "The Commission was very liberal in its treatment of certain items of property", having included the plants in the rate base, although it had in effect found that a portion of these plants might well be retired, and that "had these plants been eliminated the fair value base would have been reduced by approximately $3,000,000." (R. 112)

The concurring judge devoted considerable attention to the subject. After pointing out that the Commission had treated the plant as a standby, and the City of Los Angeles considers itself bound by the decision of the Commission, the Judge states, "But we are not bound by the decision of the Commission" (R. 152), and that, "It may be the duty of this court in determining the question of confiscation to determine the question as to whether or not the historic or reproduction cost of the gas manufac-

turing plant of the company, or any part thereof, is to be included in the rate base notwithstanding the fact that the Commission included it in its rate base". (R. 153) The Judge finally concludes that it is "unnecessary to attempt the solution of the problem which has been considered doubtful by the Commission and been avoided by the parties other than the intervening cities of Los Angeles and Pasadena" (R. 153) because he finds the rates are not, in fact, confiscatory, such finding being reached by deducting from the value of the property, for depreciation, the amount in the Company's sinking fund reserve instead of the Commission's estimate of depreciation, and by using the Commission's sinking fund depreciation annuity as a straight line annuity.

There is, therefore, no finding either by the Commission or the court below that the plant is not used or useful, but, on the contrary, it has been included in the rate base as used and useful property by both court and Commission. It seems appropriate, however, to indicate the evidence which conclusively demonstrates that the plant is used and useful and that its elimination is impossible from a service standpoint and that its elimination, to use the expression of the Commission, would not "be fair to the Company or in the interest of the consumers".

THE HISTORY OF THE PLANT.

While the Company has had a manufacturing plant ever since it commenced operations in 1868, the plant here in question was completed in 1924, less than seven years prior to the submission of this case. The existing plant of

the Company was completely rebuilt and two additional units were constructed, the work being finished in 1924, at a cost of approximately $10,000,000, so that the entire manufacturing facilities of the Company are involved. (R. 499)

The record shows that it was only the existence and continued maintenance of the manufacturing plant of the Company which made possible the introduction of natural gas service into Los Angeles. The first gas was brought by pipeline in 1913 from the Midway fields, 125 miles distant. This supply was insufficient in amount and its source too remote to permit its direct use, so it was mixed with manufactured gas. (R. 500) In 1915 the supply from the Midway field declined to such an extent that it would not equal the pipeline capacity, even though compressors were used. At about this time (1915) supplies of natural gas were found in the Los Angeles basin, but the fluctuations in the amount available made its direct use impossible, so it was mixed with manufactured gas.

Owing to the phenomenal growth of Los Angeles and its demand for additional gas, and the acompanying uncertainty and decline in the available natural gas supply, the situation became acute.

The population of Los Angeles had almost doubled in the decade from 1910 to 1920, and more than doubled in the decade from 1920 to 1930.[1] The growth in meters more

(1) The population of Los Angeles and the number of connected meters of the Company increased as follows:

	Population	Meters
1910	319,198	71,967
1920	576,673	152,422
1930	1,238,048	355,468

than kept pace with this growth, increasing from 71,967 in 1910 to 355,468 in 1930. To keep pace with the growing requirements for service the Company was compelled to expand its plant facilities at an expenditure of more than $46,000,000 between 1916 and 1929, more than $44,000,000 of which was expended between 1920 and 1929,[1] and more than $36,000,000 of which was expended between 1920 and 1925.

The Commission investigated service conditions in December, 1919, and on February 9, 1920, made a decision and order (17 C. R. C. 761) in which it found that the existing facilities were inadequate to care for present or future demands; that this situation could not be permitted to continue as serious results would ensue, and ordered this Company to submit studies of its requirements for additional production, transmission and distribution facilities to supply adequate service.

The Company, accordingly, submitted its plans for rebuilding its existing facilities and constructing new facilities. To provide the funds the Company was authorized by order of the Commission in June, 1921 (20 C. R. C. 93), to issue its 7% bonds to provide $3,444,780 to be expended in the rebuilding and enlargement of its gas works. In its order the Commission stated, "Applicant is at the present time reconstructing its present plant and during the next year will complete the largest artificial

(1) The rate base of the Company increased, according to the Commission's decision, as follows:

	Rate Base
1916	$12,592,434
1920	15,211,534
1925	51,317,326
1929	59,070,663

gas generating plant and facilities in the State of California".

Notwithstanding the enlargement of the gas manufacturing facilities, there was an acute shortage of gas. The work of enlarging the plant proceeded night and day. Mr. Day, now President of the Company, testified that during that period he spent night after night at the plant, "having a man on the holder counting rivets, just to see how far we could allow the compressors to pull that holder down, we calling for every foot of natural gas we could possibly get from every source, getting every foot we could out of the relief holder, our generators going at fullest capacity, and we having to cut pressures back so as to prevent the compressors pulling in the crowns of the holders." (R. 417)

The Commission in view of the critical situation appointed a gas administrator to regulate the apportionment of available supply of gas among the distributing companies and published advertisements urging conservation in the use of gas. (R. 338)

In 1922 the Commission instituted a further investigation, and on May 3, 1922, made a further order and decision (21 C. R. C. 675) in which it found that early in 1922 severe gas shortages occurred, and pressures were low due to a diminution in the supply and acute shortage of natural gas. The decision recited that the Company had presented "to the Commission a statement of the new construction work to be undertaken this year (1922), including new gas generators of 21,000,000 cubic feet daily capacity, together with the necessary auxiliary equipment,"

together with other items totaling an expenditure of $7,220,000. The Commission continued, "After a careful engineering investigation of local gas requirements it appears that in addition to these improvements the Company should commence the construction of large outlying gas holders in order to secure adequate gas service and to permit of more efficient and uniform operation of the gas plant". An order was made to this effect. The City of Los Angeles objected to the enlargement of the district served by natural gas as this "would result in the reduction of the remaining amount of natural gas available to the city". The Commission thereupon ordered the substitution of mixed gas for natural gas used for pressure boosting, thus increasing the amount of natural gas available "for mixing purposes in addition to the amount which would be available under a continuation of the present operating methods".

It was under these circumstances that the Company completed in 1924 the work of reconstructing its existing plant and adding additional units, under the supervision of and aided by suggestions of the Commission, until it now has a plant of 98,500,000 cubic foot daily capacity of the most modern and efficient design (R. 499) and which constitutes the largest plant of its kind in the United States. The sum so expended under plans approved by the Commission was approximately $10,000,000, and the capacity and dates of completion of the units were:

Unit	Capacity	Completed
No. 1	30,000,000 c.f.	1921
No. 2	28,500,000 c.f.	1920
No. 3	40,000,000 c.f.	1924.

So convinced were the officials of the Company of the necessity of providing additional manufacturing facilities that it purchased in 1926, at a cost of $900,000 additional property for this purpose, which property it continues to hold with this object in view. (R. 500) This property was not included in any of the valuation estimates, although it properly should have been. (*Denver U. S. Y. Co. v. United States,* 57 Fed. (2d) 735)

Following the completion of the plant additional gas producing zones were discovered in the Los Angeles Basin. In 1926 the flush production, usually attendant upon the opening of a new oil or gas field, was such that the Commission thought the supply of natural gas sufficient to warrant straight natural gas service and fixed rates on that basis, which were in effect a reduction from the rates theretofore in force. (29 C. R. C. 164; R. 342)

As has been heretofore pointed out, natural gas was first brought to Los Angeles and mixed with manufactured gas in 1913. The service of this mixed gas continued until 1927, when, following an order of the Railroad Commission on December 31, 1926, fixing rates for the service of straight natural gas, the Company commenced such service. At the date of that order the manufacturing plant was being used for the supply of mixed gas. While the Commission found that the then supply of natural gas was sufficient to permit the supply of straight natural gas and fixed rates on that basis, in so doing, however, it said (29 C. R. C. 164, 169):

> "The contention of the cities in this case is that the supply of natural gas now available and to be expected for the next few years is sufficient to justify

> the abandonment of the service of mixed gas in favor of a service of natural gas supplemented when necessary by manufactured gas. They do not question the necessity of maintaining the gas plants for protection against interruption of transmission lines or future diminution of the supply of natural gas."

The evidence herein shows that the need for the continued maintenance of the manufacturing plant is now greater than when that decision was rendered. The supply of gas available in the Los Angeles Basin, close to the Company's system has been declining and is estimated to decline. The supply of gas required must be obtained in a constantly increasing amount and percentage of total requirements from distant fields. (R. 310a, 338, 501)

On November 10, 1926, shortly before the order of the Commission fixing rates for the service of natural gas was made, and in anticipation of it, there was presented for the approval of the Commission (such approval being required for its validity) a contract between the Company and Southern Counties Gas Company, which is described in the decision and order of the Commission (28 C. R. C. 802, 803, 804) as follows: "In the proposed contract * * * which the Commission is asked to approve, the Southern Counties Gas Company of California agrees that it will during the term of the contract sell and deliver to the Los Angeles Gas and Electric Corporation any and all surplus natural gas that it may have and that the Los Angeles Gas and Electric Corporation may desire. * * * The Los Angeles Gas and Electric Corporation in turn agrees that it will during the term of the contract manufacture, sell

and deliver to the Southern Counties Gas Company of California such amounts of artificial gas as that company may require * * * (and) further agrees that it will from time to time install, operate and maintain in or near the City of Los Angeles gas making machinery apparatus and equipment sufficient to generate and deliver to Southern Counties Gas Company all of the artificial gas required from time to time by that company * * *. The contract is to remain in effect for a period of twenty years commencing January 1, 1926, and ending January 1, 1946". The Commission order authorized this contract and provided that it "be in full force for a period of twenty years after the date of its execution".

It will thus be seen that the continued operation and maintenance of the manufacturing plant is required, not only from the standpoint of safe and prudent operation of the Company's own business, but it is also required as part of the price which the Company must pay for natural gas, under a contract continuing until January 1, 1946, entered into with the specific approval of the Commission. The most optimistic estimate is that the natural gas supply will be "adequate" only until 1945.

In 1928 in the proceeding wherein the present rates of the Company were fixed by the Commission, a request that an additional depreciation annuity be allowed in respect of a part of the manufacturing equipment was denied by the Commission, which said (32 C. R. C. 379, 385):

> "However, while depreciation annuity is calculated on the basis of the expected life spans of the countless items going to make up the complete property, it

should be treated as a whole and consideration should, therefore, not be given to the chance variation from the average of any particular class of equipment or single item."

In the same case in which natural gas rates were established (29 C. R. C. 164 [December 31, 1926]), the Commission expressly fixed the rate of return at not in excess of 7.8% on the ground that the Company "supplies 300,000 consumers with the exclusive service of an essential commodity and, while the supply of natural gas may decrease or even fail entirely, these consumers must continue to buy gas made from oil or coal, and, if necessary, will pay corresponding rates. We, therefore, see no particular hazard in this business as compared with the business of any other gas company or other public utility".

NECESSITY OF THE MANUFACTURING PLANT.

Such is the history of the building of the plant. Since the service of natural gas commenced in 1927, the plant has been maintained in perfect operating condition and is operated during the winter months of each year (fires being maintained under its generators and a crew in attendance) as a standby plant in readiness to supply, on instant notice, any deficiency in supply caused either by the limitations of pipe line capacity or by any interruption due to casualty to the pipe lines or other interruption to the natural gas supply. (R. 417)

The major part of the Company's supply comes from distant points, principally from Kettleman Hills, 225

miles away. (R. 502) The transmission lines cross mountainous and desert country, subject to the hazard of flood, washout and earthquake. A break in any of the major lines during the winter months would require the immediate manufacture of gas in the plant. (R. 501) Manufactured gas, while of 550 B. t. u. quality, can be safely mixed with the natural gas (1100 B.t.u. quality) forming a mixture that can safely and properly be burned in the consumers' equipment without adjustment. (R. 501)[1]

In 1928 at the time of the St. Francis Dam disaster gas was manufactured in the plant, and, except for the fortuitous warm days then encountered, its use would have continued until the lines were repaired. (R. 344, 418)

The Commission makes the statement, which is repeated by the lower court, that "the evidence convincingly and satisfactorily establishes the existence of a natural gas supply adequate for years to come." An examination of the record shows that there is no foundation for this statement. The City's expert witness refused to predict that there was a supply that would be adequate for more than the next fifteen years, the bulk of that supply coming from a distance of over 200 miles. (R. 310a) He testified that in 1930 the adjacent Los Angeles Basin fields were third in relative importance as sources of supply, (R. 306) that they would continue to decline in production, (R.

(1) Recent developments have demonstrated the practicability of manufacturing gas from Diesel oil, having a heat content approximately equal to that of natural gas, using manufacturing plants like that of the Company. The gas so manufactured may be mixed with natural gas in time of shortage or even be substituted entirely in case of a total failure of natural gas supply. (Western Gas, August, 1932, p. 60)

308) the Santa Fe Springs field "very rapidly," (R. 312) and that there would be constantly increasing dependence on the Kettleman Hills and Ventura fields. (R. 308) The other City witness testified that the natural gas supply would be insufficient in fifteen years and it would be necessary to construct a new plant at that time if the present plant was dismantled; that the existing plant was modern in design and he knew of no improvements that could be made; that the best location for a new plant was where the present plant is located, and that it would take two years or more to build such a plant. (R. 320).

On the other hand, Company witnesses testified that the supply from nearby sources was declining at such a rapid rate that it would probably be necessary to operate the manufacturing plant during future winters if unusually cold weather should be experienced (R. 344); that because of the fact that the source of the gas was growing more distant the time would soon be reached when it would be more economical to manufacture gas to supply peak requirements[1] than to build a pipe line that would be used but for a short time each year (R. 344, 503); and that the plant was essential as a standby plant to protect its consumers against interruptions in the natural gas supply, whatever the cause. (R. 340, 503) Although the city's expert testified before the Commission in June, 1930, and then estimated an average daily production of

(1) The requirements vary greatly:

January 11, 1930	136,205,000 cu. ft.
January 16, 1930	77,815,000 cu. ft.
July 31, 1929	25,918,000 cu. ft.

368,451,000 cubic feet from the Los Angeles Basin for 1931, (R. 310a) it was shown in Mr. Day's affidavit that the actual production in the Basin fields at the end of 1930 was only one-third of the amount estimated in June. (R. 502) The actual production at the end of 1930 was only 25% of peak day requirements of utilities in that area.

Mr. Brown, the Commission's gas engineer who testified in this case, said in an article published in California Journal of Development, September, 1931, page 44:

> "* * * no relation exists between the production of, and demand for, natural gas. There is, of course, a relation between the production and the amount used by operators in the fields as fuel for drilling, but of late years much drilling is being done with electric power which changes this relation. However, between the natural gas produced and the demand for the same by the gas distributing utilities, there is no relation at all. The quantity of gas produced is dependent entirely upon the drilling programs of the oil operators, while the gas demand of the public utilities is very largely dependent upon weather conditions and temperature. Under these conditions, coupled with the non-feasibility of storing large quantities of gas, *it is obvious that the equating of the supply to the demand over any considerable period of time is highly improbable if not impossible.*" (Italics supplied.)

Mr. Brown in an address delivered August 26, 1932 at a meeting of Pacific Gas Association, said that the natural gas supply from the Los Angeles Basin has declined very greatly during the past three years. He showed that the total natural gas production from the Basin fields in June,

1932, was less than one-fifth of the October, 1929, production in those fields. (Proceedings of the Pacific Gas Association, Vol. 23, 1932, p. 382) Were it not for the production of the Kettleman Hills area, 225 miles from Los Angeles, discovered in 1928, there would be a serious shortage of natural gas at the present time.

Throughout the territory served by the Company gas is relied upon often as the only fuel for cooking, water heating and space heating. Many homes and commercial buildings are without facilities for the use of other fuels. Homes, offices, churches and even hospitals are dependent on the Company's gas supply for these essential services. Any interruption of the supply would be attended by great inconvenience and even by extreme hazard. A large number of the heating appliances are automatic and if the supply ceased even for a moment, resumption of service without first examining all these appliances would probably be the cause of explosions and asphyxiations. (R. 417, 503) The cost of such examination would be enormous.

Commission engineer Brown testified (R. 226) that the plant has been used and useful as a standby plant and should be kept ready during the winter months, and that "it is my opinion that the plant should be kept in the rate base for future years, at least for a period during which it may be necessary to operate it." Commission engineer Wehe included the plant at its depreciated reproduction value and stated (R. 293) that the figures of depreciated value shown in his exhibits represented his opinion of the present value of the property, "including both physical and functional deterioration to the extent they exist."

Mr. Day, President and General Manager of the Company, responsible for its operation, testified that the plant is necessary under existing conditions, and if the present plant were not in existence he would immediately take steps to build one. (R. 419) Colonel Alten S. Miller, with over 40 years' experience in the gas business throughout the country, testified that in his opinion the plant is necessary, and if it did not exist one should be built. (R. 412) He testified further that he knew of no large city served with natural gas which was without a stand-by plant of substantial capacity, and that natural gas companies in other parts of the country have recently constructed manufacturing plants to guard against any interruption of service. (R. 412)

Mr. Day also testified as to the great inconveniences caused by the gas shortage of 1921 and immediately following. At least one death, in a hospital, was directly attributable to the gas shortage and lack of heat. (R. 418) To risk the comfort and even the lives of 2,000,000 human beings in order to diminish the value of the Company's property by eliminating a $10,000,000 expenditure made within less than ten years would be the height of folly. Having in mind the serious hazard resulting from the unforeseen gas shortage in 1921 and 1922, which caused the construction of the plant, it would seem that common sense and a fair regard for the consumer, if not for the Company, would require the continued maintenance and service of the gas plant. It cannot rest, as here it does, on the casual allegations in the answer of an intervener in the litigation, and the speculations of a witness, who, the record shows, has never

had a moment's practical experience in the management, operation or construction of gas utility properties, nor any responsibility for the facilities or service of such properties. (R. 318)

The record also shows that due to the wide fluctuations in demand for gas as between the summer and winter seasons, a variance from 25,918,000 c. f. in the send-out of a summer day to 136,205,000 c. f. on a winter day (a variation of over 500%), the Company is faced with the necessity of using mixed gas during peak periods because of the impossibility of obtaining an adequate gas supply for a few days during the winter season.

THE LAW APPLICABLE.

The record shows conclusively that the gas plant is used and useful property; that it is presently used as a stand-by to protect the consumers against interruptions in the supply, and that its use will be required in the near future to cover peak demands in excess of pipeline capacity. Neither the Commission nor the court have found that the plant or any part is not used or useful property. That should, we submit, dispose of the matter.

However in view of the discussion by the concurring judge as to what the treatment should be if the plant were not to be included in the used and useful property, it seems appropriate to direct attention to the case of *Pacific G. & E. Co. v. San Francisco*, 265 U. S. 403, 415, where this Court considered a somewhat similar situation in respect of a gas company operating in San Francisco. That company had acquired certain patent rights to im-

proved gas manufacturing equipment which permitted a substantial reduction in the cost of production, and rendered obsolete the equipment formerly used, in advance of the normal expiration of its useful life. The master, in the court below, had excluded from the rate base the old machinery and had allowed for the patent rights only the nominal amount paid therefor. It was held:

> "Obviously, under the theory accepted below, appellant worsened its situation for rate-making purposes when it reduced the cost of manufacturing gas. Introduction of successful patented inventions enabled the public authorities to lower the rate base and gather all the benefits. The operating plant, made capable of producing gas at smaller cost, was declared less valuable than before. The result indicates error somewhere, either in theory or application of principle."

So here, the existing plant of the Company has permitted the introduction and service of natural gas at reduced cost to the consumer, which would have been impossible otherwise. When the natural gas service was ordered by the Commission it was recognized that the plant should be continued in service to meet emergency conditions. In addition the construction and continued maintenance of the plant is the consideration of one of the contracts under which the Company obtains its supply of natural gas, a contract approved by the Commission and which continues until 1946.[1]

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(1) The contract between Los Angeles Gas and Electric Corporation and Southern Counties Gas Company of California approved by the Commission on November 10, 1926 (28 C. R. C. 802).

It is the present consumers who are benefiting by the conditions which make the plant a stand-by rather than the main source of gas. Former consumers paid rates for service, in the fixing of which there was considered only the usual depreciation charge predicated on the expected physical life of the property. As before noted the Commission in 1928 (32 C. R. C. 379) expressly refused to increase the depreciation charge on the plant and in this case actually reduced the depreciation annuity upon the ground that past depreciation accruals were too great.

The present consumers are gainers from the construction of the plant for they are enjoying the reduced rates for natural gas, the introduction and use of which was only made possible by the construction of the plant.[1]

In the *Pacific G. & E. Co.* case, supra, at p. 416, this Court held:

> "Whether, under the peculiar circumstances here presented, the rate base should be fixed by adding to the agreed inventory some fair valuation of the patent rights, or whether prompt recoupment should be allowed for the obsolescence caused by their introduction, or whether appellant should be saved from actual ultimate loss by some other feasible method, we will not undertake to determine upon the present record. To the end that the issues may be reconsidered in

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(1) The record shows that straight natural gas service was inaugurated early in 1927. The average rates paid per 1,000,000 B.t.u. for various units of gas service have been (R. 342)

1910	manufactured gas	$1.28
1915	mixed gas	.83
1920	" "	.91 (natural gas shortage)
1925	" "	.81
1929	straight natural gas	.78

view of this opinion, the decree below is reversed and the cause remanded for such further proceedings as the circumstances require * * *."

The evidence herein shows that were the plant eliminated from the rate base the charge for amortization thereof over a 10 year period would exceed the depreciation and the return on the plant if it remains in the rate base. (R. 515) If such amortization charge be included the rates are unquestionably confiscatory.

Summary.

To decide whether a rate is confiscatory, the tribunal must determine both what sum would be earned under it and whether that sum would be a fair return. That decision involves four subsidiary questions, (1) the rate base, (2) the revenues, (3) the expenses, (4) the rate of return.

We have discussed in order, each of the subsidiary issues. We have done so on the basis of the minimum values for rate base, the maximum estimate of revenues, the minimum estimate of expenses, for we submit that the use of the most unfavorable evidence of record demonstrates that the rates are confiscatory.

We set forth below a summary of such values and estimates. We do not accept them as proper, or fair, but their use demonstrates that on any theory of valuation, or rate making, the rate is confiscatory. The summary is as follows:

I. Maximum Net Revenue Under Rates Prescribed.

Gross Revenue Estimated by Commission (R. 47)	$15,003,000
Operating Expenses Estimated by Commission (R. 47)	9,316,000
Net Revenue before Depreciation Estimated in Decision (R. 47)	$5,687,000
Minimum Depreciation under evidence[1]	2,306,606
Balance	$3,380,394
Adjustment for Income Tax (Credit)	135,807[2]
Maximum Net Revenue Available	3,516,201
Equivalent to Return of 8% on	43,952,513
Equivalent to Return of 7½% on	46,882,680
Equivalent to Return of 7% on	50,231,443

II. Return on Minimum Value.

		Less Maximum Depreciation $7,650,000	$3,516,201 Would Yield
A. Fair Value Fixed in Decision	$65,500,000	$57,850,000	6.08%
B. Minimum Fair Value (without going value)[3]	75,499,645	67,849,645	5.18%
C. Minimum Fair Value, as in B, plus minimum going value ($9,228,667)[4]	84,728,312	77,078,312	4.56%
D. Fair Value Depreciated fixed by Decoto, C. (R. 73)	72,500,000		4.85%
E. Historical Cost fixed in Decision (R. 27)	60,704,000	53,054,000	6.63%

(1) Testimony of Commission engineer Wehe (R. 298).

(2) Saving from income tax figured by Commission due to less net revenue.

(3) Testimony of Commission engineer Dufour (R. 254). Does not include going value. To $73,637,542 reproduction cost of physical property is added allowances made by Commission for Working Capital. Material and Supplies and one-half of 1930 Additions to plant, total $1,862,103 (R. 27).

(4) Testimony of Alten S. Miller (R. 411). Mr. Luick appraised the going value at $10,000,000 (R. 393).

The above summary shows that upon the Commission's own estimate of revenues and expenses, using the Com-

mission engineer's estimate of depreciation annuity there will be but $3,516,201 available for return. This is an 8% return on but $43,952,513 and a 7½% return on $46,882,680. The value of the property, on any basis or theory of valuation or rate making is greatly in excess of these amounts. The Commission's decision shows that its engineers testified to a greater value. The concurring opinion took the depreciated fair value of the property as $65,500,000 (R. 174) and the depreciated historical cost as $52,-120,704. (R. 172) The Commission found the fair value to be $65,500,000, subject to depreciation of $7,650,000, and in its answer (R. 88) pleads the depreciated fair value to be $57,850,000. The affidavit of its Chief Engineer, Mr. Mott, (R. 456) alleges the present fair value to be $57,000,000.

The net revenue available for return, using Commission estimates exclusively, applied to the historical cost, to the Commission's estimate of reproduction cost, to other minimum estimates, shows that under any view the rates are confiscatory.

THE COMPANY'S ESTIMATES.

While it has been our purpose in this brief to demonstrate that the rates, viewed in the light of the most unfavorable evidence of record, are confiscatory, the Company does not abandon in any way its own contentions with respect to value, revenues, expenses and rate of return, which it submits are fully supported in the record. The use of the Company's estimates may be summarized as follows:

I. Net Revenue Under Rates Prescribed.

Gross Revenue[1]	$14,352,450.
Operating Expenses[1]	8,831,013.
Net Revenue before Depreciation[1]	5,521,437.
Depreciation (Straight Line)[2]	2,830,487.
Net for Return	$ 2,690,950.
Equivalent to return of 8% on	$33,636,868
Equivalent to return of 7½% on	35,879,326
Equivalent to return of 7% on	38,442,135

(1) Reply Affidavit of H. L. Masser (R. 506). Based on actual experience of Company during preceding 12 months period. Includes Federal Tax Adjustment (R. 506).

(2) Reply Affidavit of H. L. Masser (R. 506). This annuity is estimated on the same lives fixed by Commission engineer Wehe, and is based on the Company estimate of reproduction cost new.

II. Return.

		Base	Less Maximum Depreciation $7,650,000	$2,690,950 Would Yield
A. Actual Historical Cost (without going value)		$63,413.246[1]		
B. Materials & Supplies	$ 612,735[1]			
Cash Working Capital	2,333,850[1]			
1930 Additions & Betterments	1,534,206[2]			
	$4,480,791			
		67,894,037	$60,244,037	4.47%
C. Plus Minimum Going Value	9,228,667[3]	77,121,704	69,472,704	3.87%
D. Reproduction Cost New Jan. 1, 1930 (without going value)	77,586,700[4]	77,586,700		
E. Plus B and C		91,296,158	83,646,158	3.22%

(1) Exhibit 29 (R. 366).

(2) Entire amount of 1930 additions as estimated by Commission (R. 27). It used only one-half this amount in its rate bases.

(3) Testimony of Alten S. Miller (R. 411). Mr. Luick appraised going value at $10,000,000 (R. 393).

(4) Testimony of A. J. Luick (R. 376).

These figures show that the new rates clearly fail to yield a fair return upon the values which are justified by the evidence, no matter what basis of valuation or theory of rate fixing is followed.

Even on the basis of true historical cost with proper sinking-fund depreciation annuity the return actually received is less than the cost of money. That is not a lawful test of the validity of the rates, but it is the basis ostensibly applied by the Commission. Even on that basis the rates prescribed are confiscatory.

Conclusion.

In this proceeding the Court is not called upon to make rates as "just and reasonable" under the state law. It is not called upon to determine whether the existing rates are just and reasonable under the local statute. The sole question involved is whether the reduced rates prescribed are so low as to deprive the Company of the fair return on the present fair value of the property to which under the Constitution it is entitled. In determining that question this Court, under its long established practice, may dispose of the case without undertaking to find the proper value, net revenue and rate of return, where the Commission in fixing the rates has acted so arbitrarily as to deprive the Company of its property without due process of law, by ignoring the evidence, acting without evidence in support of the conclusions reached, or applying fundamentally erroneous legal principles, including in that category disregard of the rules established by the decisions of this Court as to what should and must be considered in determining the questions involved in cases of this character.

When the issue of confiscation is raised, as here it is, it is the duty of the federal courts to exercise a fair and independent judgment on the law and the facts involved, and failure to do so is reversible error. In such a case it is not a question of whether there was evidence before the Commission from which a proper conclusion could have been reached; it is not a question of whether the Commission was consciously unfair to the utility. The question is whether under the evidence of record, the rates prescribed will fail to yield the minimum fair return on

the present fair value, which this Court has held is "the basis of all calculations as to the reasonableness of rates." That question, it has been held, must be determined by the court itself from an independent examination of and judgment upon the evidence.

In this case it is unnecessary to engage in any controversy as to rate-making or valuation theories. On whatever basis the findings of the Commission be considered in relation to the facts disclosed by the record, the rates are shown to be confiscatory. Whether historical cost, cost of reproduction or any other base be used, the findings of the Commission are inadequate in the light of the facts of record, the rate of return is less than that to which the Company is entitled, the net revenues are in excess of those which will be yielded and therefore the rates are confiscatory. We have shown that the net revenue available for return on the basis of the Commission witnesses' estimates will yield but 8% on a valuation of $42,254,926 and but 7% on a valuation of $48,291,343, which are admittedly many millions of dollars less than the minimum estimates of value appearing of record.

We have shown that true historical cost was ignored because of the erroneous theory that facts could be disregarded, and estoppels unknown to the law, applied. The alleged basis of estoppel was shown to be erroneous in fact and the cost of the Company's property was shown to have been borne solely by the Company itself. The rates prescribed, using the Commission's own estimate of net revenue, would yield a 7% return on an amount more than $10,000,000 less than the historical cost found. The return on the historical cost found by the Commis-

sion, deducting depreciation as found by it, without any allowance for going value, would be but 6%. Admittedly, this is less than the cost of money to the Company.

We have shown that competent evidence of reproduction cost showing a value of $10,000,000 in excess of the fair value found by the Commission, for physical property alone, not including anything for going value, was ignored as speculative, hypothetical and unrelated to original cost. Such evidence, it has been held by this Court, must be fairly considered. It is necessarily a "matter of opinion and not of outlay". A finding of value is a matter of fair judgment applied to all relevant facts, of which cost of reproduction is one. It is not a matter of formulas and application of a formula which ignores reproduction cost is arbitrary and unlawful.

We have shown that the Commission ignored and refused to include in its finding of value, or to allow any return, upon the going value of the Company's business and property, although the record shows the existence of such value in a substantial amount and although it was appraised by engineers of unquestioned qualification whose testimony stands uncontradicted and unimpeached by anything of record, as having a value of in excess of $9,000,000. This value was intentionally excluded by the Commission, not because it was found not to exist, but because it did not accord with the Commission's formula of rate making.

We have shown that the Commission ignored and refused to give any weight or consideration to unimpeached evidence that the current rate of return on investments of corresponding risk in the same general locality is at least 8% per annum and that it fixed the rate of return

ostensibly upon the cost of money invested by the Company and upon the return apparently enjoyed by other utilities regulated by the Commission on the same erroneous theories. We have shown that the actual cost of money to the Company is in excess of the return allowed by the Commission.

We have shown that in estimating revenues the Commission applied a theory which according to its own witnesses would have resulted in confiscation throughout the preceding six years; it found unreasonable rates which it had prescribed as just and reasonable effective December 1, 1928, in a proceeding initiated on its own motion less than ten months later, and prescribed reduced rates not upon the ba is of actual earnings enjoyed by the Company but solely upon the basis of what the earnings might have been had different temperatures prevailed, had more sales been made and had net income been much greater than it was. While normal conditions may properly be taken as a guide to future estimates normalcy must necessarily have some relation to actual experience.

We have shown further that in estimating operating expenses the Commission allowed for depreciation annuity an amount at least $1,300,000 less than the depreciation annuity testified to by its own engineers. If this correction alone is made in the Commission's estimates the rates are shown to be confiscatory whatever basis of valuation be employed.

The arbitrary character of the Commission's action in this case is exemplified in the following statement wherein we set forth the legal theories forming the basis for the Commission's conclusions herein, and in parallel columns

the law in relation to those matters as laid down in the decisions.

The Commission's Theories.	The Law.
Rate making should be on a formula,	"It is not a matter of formulas" (*Minnesota Rate Cases*)
based on historical cost,	"The basis of all calculations * * * must be the fair value of the property" (*Smyth v. Ames*)
calculating depreciation on a sinking fund basis,	"The utility is entitled to see that from earnings the value of the property invested is kept unimpaired, so that at the end of any given term of years the original investment remains as it was at the beginning." (*Baltimore Street Ry.* case)
allowing a "return somewhat in excess of the cost of money."	"It is manifest that just compensation for a utility * * * is more than current interest on mere investment" (*Baltimore Street Ry.* case.) The return must be "equal to that generally being made at the same time and in the same general part of the country on investments in other business undertakings which are attended by corresponding risks and uncertainties." (*Bluefield* case)
Evidence of actual cost may be ignored because of past accounting errors and a "quasi estoppel" to show the facts.	"The rule of estoppel by judgment obviously applies only to bodies exercising judicial functions; it is manifestly inapplicable to legislative action." (*Arizona Grocery Co.* case)

The Commission's Theories.	The Law.
This estoppel arises from the charge to operating expense of items properly allocable to capital.	"Customers pay for service, not for the property used to render it. Their payments are not contribution to depreciation or to other operating expenses or to capital of the company." (*New York Tel. Co.* case, 271 U. S.)
Evidence of reproduction cost may be ignored as based on opinion, and having no relation to cost.	"Reproduction value * * * is not a matter of outlay, but of estimate" (*Ohio Utilities Co.* case) "* * * the then actual cost of reproducing the plant would * * * commonly be persuasive evidence of its actual value" (Brandeis, J., dissenting in the *O'Fallon* case)
Evidence of going value may be ignored because resting on opinion and because some part of the cost of creating going value was reflected in operating expense.	That going value exists is "self-evident" (*Des Moines* case). "This element of value is a property right, and should be considered in determining the value of the property." (*Indianapolis Water Co.* case.) It is not to be denied because business developed out of earnings. (*Lincoln Gas Co.* case, 250 U. S.)

The Commission's Theories.	The Law.
The dominant consideration in determining fair value is actual cost with the single assumption that current prices prevailed during the life of the property; applied in this case by taking a reproduction appraisal at spot prices and applying to it deficient historical overheads of 6%.	"It is not a matter of formulas" (*Minnesota Rate Cases*). Reproduction cost must be considered (*Southwestern Bell Tel. Co.* case) "We do hold it to be an erroneous method of procedure * * * to regard book costs, whether transmogrified to normalcy or not, as proof of a better kind than opinion evidence" (*New York Tel. Co. v. Prendergast*, 300 Fed. 822, 825) "It is that property, and not the original cost of it, of which the owner may not be deprived without due process of law." (*Minnesota Rate Cases*)

These many errors of law, involving questions which were fundamental in character and upon the basis of which the decision shows on its face to have been made, are "arbitrary and constitute a denial of due process of law" as this Court held in *Chicago M. & St. P. R. Co. v. Public Utility Commission*, 274 U. S. 344. Coupled with the many errors of fact, and the ignoring of uncontroverted evidence showing much higher values than those fixed, they resulted in the prescription of rates that are in fact confiscatory.

The court below, without independent findings on the material issues merely approved the results reached by the Commission. Its decision is subject to the same infirmities as that of the Commission. It adds nothing to the findings of the Commission.

The rates now in effect were prescribed as just and reasonable by the Commission, effective December 1, 1928. Those rates were found unreasonable in this proceeding, initiated by the Commission less than ten months following its order, not because the Company was earning in excess of a fair return, but because it might have earned such a return if temperatures had been colder and revenues had been greater. It prescribed the reduced rates upon a basis which if applied to past experience would have resulted in confiscatory rates during the preceding six years.

This result was reached by applying the Commission's theory of value which ignored true costs, in favor of admittedly erroneous book entries; by refusing consideration of costs of reproduction; by refusing to allow anything for going value.

The confiscatory order results from the application of a formula of rate making which is in effect an attempted regulation of the Company's profits, and not the fixing of just and reasonable rates; a formula of regulation which is shown to have resulted in actual practice, in the Company's earning over a period of years, less than the rate of return allowed by the Commission on its own deficient valuation, the deficiency amounting to millions of dollars.

The reduced rates will cut the Company's gross revenue by more than $1,300,000, and its net revenue by nearly $1,100,000 a year (more than one-fifth of its entire net revenue). Made in a proceeding instituted prior to the 1929 collapse, and entered at a date prior to the realization of the continued and severe effect of the business recession,

the order prescribes rates which it is submitted are confiscatory under any principle or theory of regulation or valuation and are the result of the application of an erroneous formula without support either in law or fact. It is submitted that the decree appealed from should be reversed and the court below directed to enter a decree permanently enjoining enforcement of the Commission's order.

Respectfully submitted,

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